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Effects of COVID-19 on Maternal and Child Health in Haiti

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Walden University
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Abstract

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MPH, University of Oklahoma, 2012

BA, Southwest Baptist University, 2007

Dissertation Submitted in Fulfillment

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Abstract

Haiti has a history of natural disasters that have played a part in the country's weak infrastructure, poor quality health care, and short life expectancy. The purpose of this qualitative case study was to understand the experiences of health care professionals providing prenatal, perinatal, and postpartum health care services before and during the COVID-19 pandemic in Haiti to gain an understanding of the gaps in disaster response in reproductive health care. The theoretical bases for this study were community resilience theory and reproductive justice theory. Data were collected from interviews with 10 health care professionals working in Haiti providing reproductive health care services. Data were transcribed and manually coded into two data sets: pre-COVID-19 conditions and post-COVID-19 conditions based on the research questions. Five themes emerged from pre-COVID-19/post-COVID-19 similarities: partnerships directly impact health outcomes, impact of disparities and the need for equity, poor infrastructure and educational impact, lack of reproductive health care, and limited health care delivery. Seven themes emerged from the pre-COVID-19/post-COVID-19 differences: decrease in social support in all regions, decrease of community support, lack of reproductive health care and increased home births, increased disease prevention and limited consequences of COVID-19, decrease in all health care funding sources, very limited health care delivery and minimal quality care, and negative impact of fear. Findings indicated that disaster relief interventions have not evolved to protect peri- and postnatal women after a disaster. Findings may inform future disaster relief policy and programs.

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Chapter 1: Introduction to the Study

Haiti, a developing country in the Caribbean Sea, is on an island named Hispaniola and shared by the Dominican Republic (Pallardy, 2018). Haiti has a history of natural disasters that have played a part in the country's weak infrastructure, poor quality health care, and short life expectancy. Haiti is home to nearly nine million inhabitants, and approximately one third of them are girls and women between the ages of 10 and 49 years (Population Reference Bureau, 2015).

Although all people who have experienced a natural disaster can be negatively affected, women have been shown to experience a disproportionate number of consequences compared to men (Thurston et al., 2021). More specifically, women who are of childbearing age and are pregnant who experience a natural disaster are most susceptible to harm due to their specific needs including their need for adequate, clean water and a more stable clinical care infrastructure (Callaghan et al., 2007). The consequences of poor conditions have been shown to lead to preterm delivery, low birth rates (Tong et al., 2011), dangerous abortions, infertility, stillbirths, birth defects, and developmental disabilities (Casey et al., 2015). In this study, I took a deeper look into the history of Haiti and how natural disasters have affected its most vulnerable populations. The data showed gaps in the literature and how disaster preparedness can help to bring about change to save lives while also providing the opportunity for health care professionals to be heard through their experience.

Background

Recent research indicated that women are often the most affected population in a disaster area and that they account for most of the displaced population after a natural disaster (Nour, 2011). More specifically, women who are pregnant are one of the most vulnerable groups compared to the rest of the population. This outcome is due in part to their unique needs including their need for clean water and clinical care, both of which have proven to be scarce or nonexistent after a disaster (Callaghan et al., 2007).

Studies showed reproductive health needs to be a main component in the humanitarian response of a disaster especially in poverty-stricken areas (Carballo et al., 2005; Casey et al., 2015). Carbello et al. (2005) discussed the usefulness of a toolkit in similar situations called the Inter-Agency Working Group on Reproductive Health in Refugee Situations toolkit. The Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings was produced in collaboration with members from the United Nations and nongovernment organizations that make up the Inter-agency Working Group (IAWG) on Reproductive Health Crisis. The manual contains best practices, as recommended by the World Health Organization (WHO), for crisis settings around the world. The first manual released in 1999 focused on reproductive health in refugee situations and has since been updated several times. A community's ability to adapt to something so tragic relies on the wellness of its population (Norris et al., 2008). A study conducted by Coupet et al. (2013)showed a positive correlation between the level of disaster preparedness and the effectiveness of disaster response as seen in several settings including one similar to Haiti. A setting with low capacity to respond to extreme

situations such as a natural disaster, which Haiti has experienced many of, has a difficult time meeting the needs of its community and fully recovering from the event (Coupet et al., 2013).

Studies showed the importance of planning for disasters in times of normalcy and indicated that in countries where resources are limited, planning is often neglected. Benjamin et al. (2011) made a compelling argument for proactive intervention in emergency management based on the 2010 Haiti earthquake. The study conducted by Merin et al. (2010) provided insight on the environment and barriers that were faced immediately following the 2010 natural disaster, which could serve as a good reference for the COVID-19 pandemic. Merin et al. also described the need for balance between quality and quick triage. Cutter et al. (2008) presented a framework of community resilience to natural disasters at a local level and provided a list of variables to be implemented. Cutter et al. also provided a good foundation for the community resilience model, which was the foundation for the current study.

Problem Statement

When a natural disaster occurs, women are the most affected. They make up much of the poorer population, are usually less educated, and account for 75% of those who are displaced (Nour, 2011). Their familial responsibilities are amplified, and their vulnerability to reproductive health problems increase greatly (Nour, 2011). Researchers have shown that in areas of conflict and natural disaster, reproductive health services are lacking (Casey et al., 2015). Compounding the problem, health care workers do not have

the knowledge and skill sets to effectively meet the needs of these vulnerable populations (Casey et al., 2015).

On March 19, 2020, the first case of COVID-19 was reported in Haiti. Due to Haiti's poor infrastructure and limited access to health care, the number of cases rose in a short amount of time and cases were eventually reported in all 10 regions of the country (Rouzier et al., 2020). Because Haitians suffer from poverty, poor water quality and access, food insecurity, poor sanitation, and little to no access to quality health care and education, Haiti remains susceptible to complications from the pandemic.

To slow the spread of the disease, the country immediately closed it borders, mandated masks, and limited public gathering to 10. Even with these precautions, the country remained extremely vulnerable. Not only did the import of food cease operations, leaving over 1 million people in severe hunger (United Nations News, 2020) but Haiti was also cut off from proper testing for the disease. Haiti was left to deal with the pandemic on its own while previous natural disasters provided an influx of humanitarian aid (Rouzier et al., 2020). Haiti is ranked 19th among countries with the highest preterm birth rates (Jacobs, 2018) and studies suggested (Nour, 2011) more research was needed to understand the state of reproductive and child health care from previous disasters to determine whether any changes had been implemented. I sought to increase knowledge of the lessons learned from providing reproductive and child health, an extension of maternal health that includes the welfare of the family and the survival of the mother and child with a focus on antenatal (before birth), labor and delivery (the process of

childbirth), and postnatal (after birth) services before and during the worldwide COVID-19 pandemic to be used to prepare for the next disaster.

Research Questions

RQ1: What are the experiences of the reproductive and child health care professionals providing antenatal, labor and delivery, or postnatal care who worked with women before and after the first case of COVID-19 in Haiti was discovered?

RQ2: Since the first case of COVID-19 was discovered in Haiti, what changes, if any, have occurred to the reproductive health care system in Haiti?

Framework for the Study

The theoretical basis for this study was founded in two theories: community resilience theory and reproductive justice theory. Resilience is defined as positive psychological, behavioral, and/or social adaptation in the face of stressors and adversities that draws upon an individual's capacity, combined with families' and communities' resources to overcome serious threats to development and health (Dulin et al., 2018)Community resilience theory states a community is most resilient when it reduces risk and decreases resource inequality by engaging local people, creating partnerships, and encouraging social support through flexibility, decision-making skills, and trusted information after a natural disaster. This theory links resilience to adaptive capacities in adversity and states that resilience is a process, not an outcome (Norris et al., 2008).

The WHO (2013) defined reproductive rights as the basic right of all individuals to have the choice to decide the number, spacing, and timing of their children and to have the information and the means to do so, including the right for every human being to have

the highest standard of sexual and reproductive health. Reproductive justice theory advocates for reproductive rights through a broader social justice moment including through human rights, peace, educational equality, poverty, and health care disparities (Chrisler, 2014). A person's ability to control what happens to their body is dependent on factors such as poverty, the environment, and injustice (Silliman et al., 2004). This approach provides justification for the need of reproductive health especially during times of inequality in health care and environment.

Nature of the Study

The nature of this study was a qualitative case study approach with the purpose to gain perspective on program effectiveness in its current state and recommendations for what is needed for preparation in the event of another natural disaster. Interviews are a vital part of most qualitative studies and are widely accepted as appropriate methods for collecting data and informing the researcher on experiences (Gill & Baillie, 2018).A case study is concerned with the how and why of a phenomenon in a real-world setting (Yin, 2013). Because the current study focused on the experience of health care professionals during the COVID-19 pandemic in Haiti and how that altered the health care system, a case study approach was the most logical choice.

Operational Definitions

The following definitions are provided to help readers understand the terms used throughout this study:

COVID-19: An infectious disease that originated from the coronavirus (a family of viruses that cause respiratory infections that can range from the common cold to

Severe Acute Respiratory Syndrome. Coronavirus has been known to affect both animals and humans). COVID-19 was first discovered in Wuhan, China in December 2019 and evolved into a global pandemic (WHO, 2020b).

Disaster preparedness: A continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. This exercise is used to prevent, respond to, and recover from events such as natural disasters (Department of Homeland Security, 2022). The WHO (2018) added that preparedness is the measure that ensures the organized mobilization of personnel, funds, equipment, and supplies within a safe environment for effective relief.

Disaster response: The set of activities implemented after the impact of a disaster to assess the needs, reduce the suffering, limit the spread and the consequences of the disaster, and open the way to rehabilitation (WHO, 2018). The response will vary depending on the environment and community in which the disaster occurred and the available resources to that community.

Health care professionals: Several types of professionals who study, diagnose, treat, and/or prevent human illness, injury, and other physical and mental ailments. This group includes a wide range of professionals including but not limited to doctors, nurses, psychologists, dentists, pharmacists, and midwives (WHO, 2013).

Maternal health: The health of a woman during pregnancy, childbirth, and the postpartum period. For some women, maternal health can be a positive experience, but for others it can equate to suffering, poor quality care, and even death (WHO, 2018).

Natural disaster: An event that occurs in nature including earthquakes, landslides, heatwaves, droughts, cyclones, hurricanes, floods, and volcanoes (Adio & Thomas, 2015). Natural disasters can provide an ongoing threat to the economic welfare of an area particularly in developing countries (Cassar et al., 2017).

Port-au-Prince: The capital of Haiti. Port-au-Prince is the center of commerce for the country. There are more than 1 million people living in the city with high unemployment and a low literacy rate.

Reproductive and child health care: Health care that includes the health concerns of a woman before, during, and after pregnancy, newborn health (the first 28 days of life), and children to the age of five (Black et al., 2016).

Reproductive health: The diseases, disorders, and conditions that affect the functioning of the male and female reproductive systems during all stages of life. Disorders of reproduction include birth defects, developmental disorders, low birth weight, preterm birth, reduced fertility, impotence, and menstrual disorders. Research has shown that exposure to environmental hazards may pose the greatest threat to reproductive health (National Institute of Environmental Health Sciences, n.d.).

Vulnerable populations: Groups with increased susceptibility to poor health outcomes rendering them disproportionately affected by a disaster event (Bloem & Miller, 2013).

Assumptions

Assumptions of this study included the idea that most of Haiti is lacking proper reproductive health care services and women's access to services is limited. Additionally,

based on the infant mortality rate of Haiti, compared to neighboring countries including the Dominican Republic, I assumed most maternal and reproductive health services are affected by environmental factors including the series of natural disasters and pandemics Haiti continues to experience. Other assumptions involved the data collection. Originally, I assumed there would be available mothers and health care professionals, who experienced COVID-19 in Haiti, who would participate in the data collection process. Changes needed to be made to the data collection process and the target populations. Additionally, I assumed participants would understand the interview questions and be trustworthy in their responses. Lastly, I assumed that trust could and would be built betweenthe translator and I to collect the most accurate responses from the participants.

Scope and Delimitations

This study originally required the use of at least two interpreters for participant recruitment, data collection, and data analysis. Interpreters were thought to be needed to be proficient in speaking Creole and English. The number of interpreters was going to depend on what was needed to control bias and increase trustworthiness of the study. Due to the COVID-19 pandemic, the scope of the study needed to change to include only English-speaking participants, thereby eliminating the need for interpreters. The study also changed from in-person interviews to phone interviews.

Originally, participants were going to consist of two groups: health care professionals and pregnant or recently pregnant women in the community. Due to complications of the pandemic and the worldwide travel restrictions, it was no longer possible to conduct group interviews; therefore, pregnant women were removed from the

study as a target population. Health care professionals were recruited for one-on-one interviews via phone conferencing. All participants were required to be currently living in Haiti and to have experience in providing reproductive health care services before and during the COVID-19 pandemic in Haiti.

Limitations

After natural disasters, data collection can be difficult due to the movement and health of the population (Lu et al., 2012). The current study was no exception. The target population in this study was limited to participants who spoke English because I, the researcher/interviewer, was limited in my knowledge of Creole .Recruiting participants was difficult because the target population was limited and participants were recruited using an online medical community of people who either worked in Haiti or had connections to the health care system in Haiti.

Additionally, participants were hesitant to speak about their reproductive experiences because they did not want to speak poorly of their nation or the people they serve. It was important for me to explain the benefits that collecting the data would have for the individual and their community. I also allowed for any questions before, during, and after the interview; as well as, reminded participants that their participation was completely voluntary and they could end the interview at any time. Lastly, due to travel restrictions, all communication was done electronically through the phone or computer, which made communication difficult due to the lack of resources or internet services.

Significance

This study addressed existing gaps in reproductive health care disaster response by identifying what holes exist in disaster preparedness for reproductive health in Haiti. This study was unique because I looked at the programs implemented for reproductive health care in Haiti since the first case of COVID-19 in Haiti to determine whether more was needed to reduce reproductive health care service barriers when the next natural disaster occurs. I sought to empower health care providers by giving them an opportunity to share their experiences during the COVID-19 pandemic and make recommendations for next steps in disaster preparedness for maternal health. This information may serve as a foundation for policy implementation relating to disaster relief efforts by humanitarian aid and local organizations. With better policies and programs in place, communities affected by disasters may have better opportunities for quick recovery and less impact from another disaster.

Summary

Chapter 1 provided a brief introduction into the nature of this research on the maternal health of the women in Haiti related to disaster preparedness with a focus on the COVID-19 pandemic in Haiti. Research showed that developing countries that experience a devastating event have a difficult time recovering, and it affects the overall health and lifespan of that community. Chapter 2 provides a review of the literature on natural disasters in developing countries, the history of Haiti, the natural disasters it has experienced, vulnerable populations, and the vulnerable populations in Haiti accessing maternal health care.

Chapter 2: Literature Review

The purpose of this study was to understand the experiences of health care professionals providing prenatal, perinatal, and postpartum health care services before and during the COVID-19 pandemic in Haiti to gain an understanding of the gaps in disaster response in reproductive health care.. To address the gap, I used a qualitative case study approach and conducted one-on-one interviews with health care professionals who are providing reproductive health services in Haiti. The original intent of the study was to also interview women in the community. However, due to unforeseen complications, key informant interviews were conducted only with health care professionals.

This chapter includes a review of the literature addressing reproductive health, the status of women and children in Haiti, and their vulnerability, especially after a natural disaster, as well as the environment of Haiti and the roles natural disasters have played in creating an unstable society. This chapter also covers the frameworks of this study, which included the community resilience theory and the reproductive justice theory. Together, they emphasize the need for a focus on reproductive health when designing policy and programs for disaster preparedness.

Literature Search Strategy

The literature search strategy used when finding previously published articles covering the landscape of Haiti and the natural disasters that have occurred, as well as the effect natural disasters have had on reproductive health around the world, particularly in third world counties, included a variety of resources and academic search tools. These

tools included Walden Library's databases, which included ProQuest and EBSCO. Google Scholar and local libraries were also used when conducting the literature review. Key search terms were explored as single terms and in combination with other terms. They included words such as *Haiti, natural disaster*, *earthquake, COVID-19, reproductive health,* and *disaster preparedness*.

Theoretical Foundations and Conceptual Framework

The theoretical basis for this study was founded on two theories: community resilience theory and reproductive justice theory. Together they provided the basis for the need to focus on reproductive health during the planning of a natural disaster.

Community Resilience Theory

Resilience is defined as a community member's capacity, skills, and knowledge that allows them to deal successfully and participate fully in their recovery from disasters (Coles & Buckle, 2004). Community resilience theory states a community is most resilient when it reduces risk and decreases resource inequality by engaging local people, creating partnerships, and encouraging social support through flexibility, decision-making skills, and trusted information after a natural disaster (Norris et al., 2008). This theory links resilience to adaptive capacities in adversity and says that resilience is a process, not an outcome (Norris et al. 2008).

Cutter et al. (2008) made the case for the importance of disaster relief to look at resilience, not vulnerability. Vulnerability focuses on the characteristics of society that have the potential to create harm; however, resilience focuses on the ability of a social system to absorb the impact of the event and cope with the aftermath (Cutter et al., 2008).

Resilience highlights the methods a community has to reorganize, adapt, and learn from the response to a recent disaster (Cutter et al., 2008).

Berkes and Ross (2013) recognized the importance community resilience should play on future research and practice and focused on two objectives: the social-ecological system and the development of health. Berkes and Ross (2013). stressed the need for all social-ecological systems and agencies to collaborate within the cycles of a community's economy as well as the people–place connections. They highlighted the strengths of a place and community (Berkes and Ross., 2013) to create a more cohesive plan for a future event or disaster.

Community resilience is an important step in risk reduction after a disaster; however, the metrics with which to measure community resilience differ among researchers (Burton, 2015). Cutter et al. (2008) agreed that factors measuring community resilience are fragmented throughout literature and suggested the preceding conditions play a large role in the ability to recover from a natural disaster. Burton (2015) suggested a list of metrics, including but not limited to, educational status, employment status, and land use to determine what makes certain communities more resilient and help create the most effective disaster preparedness plan.

Case studies including a study on community resilience and the recovery from the 2013 Boulder County flood served as a good example of the importance of community resilience planning to better prepare for an upcomingdisaster (Clavin et al., 2017). The programs, policies, and efforts of the community play a big role in the capability of a community to be successful in dealing with a disaster (Clavin et al., 2017). Another

important aspect of community resilience is the pliancy of the organizations within that community after a disaster. The ability of an organization to continue to serve its community through goods, services, and employment opportunities is vital in helping a community recover (Lee et al., 2013).

A baseline definition of community resilience in disaster risk management is needed. Doctors place an emphasis on self-reliance and how the community should be educated as it relates to disaster management. This idea contradicts some of the common community resilience research and shows the importance of communicating and defining community resilience before and after a disaster occurs (Aldunce et al., 2015).

Reproductive Justice Theory

The WHO (2013) defined reproductive rights as the basic right of all individuals to have the choice to decide the number, spacing, and timing of their children and to have the information and the means to do so, including the right for every human being to have the highest standard of sexual and reproductive health. Reproductive health includes a wide range of topics including contraception, pregnancy, prenatal care, abortion, infertility, birthing, female circumcision, postpartum mental health, and prevention/control of sexually transmitted infections (WHO, 2013). Reproductive health, or the lack thereof, can also consist of sexual violence against women and acts that involve rape, sexual assault, and/or sex trafficking, all which can lead to reproductive health issues (Beckman, 2018).

Reproductive justice theory advocates for reproductive rights through a broader social justice movement including human rights, peace, educational equality, poverty,

and health care disparities (Chrisler, 2014). Reproductive justice requires the participation of all individuals beyond race, gender, marital status, and/or choice of religion (Chrisler, 2012). A person's ability to control what happens to their body is dependent on factors such as poverty, environment, and injustice (Silliman et al., 2004). This approach provides justification of the need for reproductive health rights, especially during times of inequality in health care and environment.

Reproductive justice is complex because it includes all reproductive issues faced by women. Many attitudes and beliefs of reproductive rights have been framed based on the misinformation given by media including music and television (Jaworski, 2009). This could play a role in hindering the need for focusing on reproductive justice in disaster planning. Based on the availability of recent case studies that discussed the reproductive justice theory, there is much more that needs to be discovered on the topic, and it is a concept that has not been widely accepted (Waldman & Stevens, 2015).

Literature Review

History of Haiti

Haiti is credited with being the first country, with a Black population, to win its independence. The story of a successful slavery revolt against the French has gained the Haitian people the reputation of being resilient. Haitian resiliency has continued to be a consistent theme through many uprisings, militarization, and natural disasters (University of Kansas, n.d.).

Haiti and the Dominican Republic

Although Haiti and the Dominican Republic share the island named Hispaniola, there are vast differences between the two countries, including the economy and disparities among their people. The idea that Haitians are an uncivilized people is an assumption sometimes held by their neighbors (Keys et al., 2015). It is important to take note of the differences between Haiti and the Dominican Republic when trying to understand the status of Haiti's infrastructure and its people.

There is a Haitian proverb that says "Dèyè mòn, gen mòn," which translates as "behind the mountains there are mountains" (University of Kansas, n.d.). Haiti has come to be known for its hardships. Haiti is considered the poorest nation in the Western hemisphere and one of the poorest in the world with a gross domestic product (GDP) per capita of $846 USD (The World Bank, 2017). Almost 60% of Haitians live in poverty making only $2.41 USD per day, while 24% live in extreme poverty earning only $1.23 USD per day (The World Bank, 2017).

Although the Dominican Republic is not a nation of great wealth, it is thought to be wealthier than its neighbor (Rogers-Brown et al., 2015). In recent years, the Dominican Republic has shown strong economic growth and a significant reduction in poverty from 42% in 2012 to 30.5% in 2016 (The World Bank, 2017). The Dominican Republic's economic growth has proven to be one of the strongest in the region in over 20 years (The World Bank, 2017). This is one of the reasons why migration from Haiti to the Dominican Republic has been so popular, although difficult. It was not until 2005 that

a child born from Haitian immigrants was recognized as a Dominican citizen (Rogers-Brown et al., 2015).

In addition to poor relations with neighbors, poor policies including extreme dictatorships (Hughes & Miklaucic, 2016) and economic hardships (including disease and natural disasters) have played a role in continued economic decline and instability in Haiti while the Dominican Republic has shown increased growth and stability (Stoyan et al., 2016). These factors have led to continued instability for Haiti (Jaramillo & Sancak, 2007). Even though both countries are vulnerable to natural disasters and both have made positive changes toward disaster preparedness, Haiti remains vulnerable to disasters with more than 90% of its population still at risk (The World Bank, 2017). In 2016, Haiti experienced Hurricane Matthew, the most devastating disaster since the 2010 earthquake, and suffered damages that amounted to 32% of its GDP (The World Bank, 2017).

History of Natural Disasters in Haiti

Haiti has a long history with natural disasters. Compounded with several disadvantages, including a weak infrastructure, an ongoing cholera epidemic (Tappero & Tauxe, 2011) and deforestation (Marzelius, 2020), the people of Haiti face extreme vulnerability to mortality. Women living in Haiti have been shown to be the most vulnerable. Even before a disaster occurs, women suffer from gender inequality and unequal social status (True, 2016).While disasters affect all people, they do not affect them equally (Llorente-Marrón et al., 2020). After a disaster, women are exposed to many consequences including lack of access to health care and gender violence. If no disaster preparedness plan exists to address these issues, their vulnerability will continue

to increase (True, 2016). The following sections address some of the most influential disasters in Haiti's history and how they have played a role in the state of the country.

2010 Earthquake

On January 12, 2010, a 7.0 magnitude earthquake hit 15 miles southwest of the Haitian capital of Port-au-Prince (Kolbe et al., 2010). Soon after the initial quake, significant aftershocks of 5.9 and 5.5 magnitude followed, causing hundreds of millions of dollars in damage and 230,000 deaths and displacing nearly 1 million people, and effecting one third of the country's population (Margesson & Taft-Morales, 2010); (U.S. Department of the Interior, 2012). In the future, Haiti is expected to experience an earthquake of the same magnitude or greater (Bilham, 2010); (Schuller et al., 2019). Due to limited resources and an extremely weak infrastructure, including the loss of many hospitals and physicians, the global response came almost immediately (Van Berlaer et al., 2017).

With the help of the Haitian government, The World Bank (2010) published a Post Disaster Needs Assessment stating that the total loss of damages equaled $7.8 billion USD. That was slightly more than the country's GDP in 2009 (The World Bank, 2010). This was the first time the loss caused by a natural disaster was higher when compared to the economy of the country. Haiti has yet to recover.

2010 Cholera Outbreak

A little more than 10 months after the 2010 earthquake, the Haitian Ministry of Public Health and Population reported a cholera epidemic (Piarroux et al., 2011). This was the first cholera outbreak reported in Haiti in more than 100 years (Centers for

Disease Control and Prevention [CDC], 2010). Cholera is an infectious disease caused by watery diarrhea and is spread through contaminated water (CDC, 2018). The disease leads to dehydration and, if untreated, can be so severe that it causes death within a few hours (CDC, 2018).

The first cases of cholera came and spread quickly due to poor conditions caused by the earthquake earlier that year, including poor sanitation, low water quality, and little to no immunity built up against cholera among the Haitian population (Domonoske, 2016). Cholera killed thousands of people (Domonoske, 2016). Although it was first believed that the earthquake had brought about the widespread epidemic, studies later revealed United Nation peacekeepers, originally from Nepal, were exposed to the disease either during their 3-month training period or during their 10-day home visit before departing for Haiti (Frerichs et al., 2012). Upon returning from their break, soldiers were not required to take part in additional medical examinations (Frerichs et al., 2012). Once in Haiti, the peacekeepers were stationed at a camp near Mirebalais, which was shown to be a part of illegal dumping of waste tanks. This allowed the infection to spread quickly (Tasker & Robles, 2010).

Haiti still suffers from several hundred cases of cholera a year (Holpuch, 2016). When rivers flood due to heavy rainfall, caused by other natural disasters, the water becomes contaminated making it difficult to control the spread of the disease (Holpuch 2016). A mistake, made over 8 years ago, is still taking lives of the Haitian people today. This situation is an example that policies and the practices of humanitarian aid need to be continually evaluated for best practices (Saini, 2017).

Hurricane Matthew

Hurricane Matthew hit the coast of Haiti on October 2, 2016. The devastating disaster caused damage amounting to 22% of the country's GDP and affected more than 2 million people (The World Bank, 2017). BBC News (2016) reported that more than 900 people were killed. Some areas of Haiti were almost 90% destroyed, and some were said to be completely destroyed (BBC News, 2016). It was described as the worst natural disaster to happen to Haiti since the 2010 earthquake and the worst storm to hit Haiti in 50 years (Ahmed, 2016).

Hurricane Matthew served as a reminder to the country of its poor infrastructure and inefficient communication plan, which most likely added to the number of deaths caused by the disaster. There was not a sufficient way to warn residents to leave dangerous areas (Ahmed, 2016). Thousands of structures, including hospitals, schools, and many essential bridges and roads were destroyed or washed away during the 4-day landfall of the storm. Additionally, cholera outbreaks increased in the affected areas in part due to the vaccine cold chain being destroyed (The World Bank, 2017).

While some rapid interventions, put in to place after the 2010 earthquake, helped to decrease the recovery time, however,the amount of violence that occurred after the hurricane, caused long-term damages (The World Bank, 2017). Before the hurricane, the Haitian presidential elections were supposed to take place; however,due to the storm, an interim administration was forced to make decisions for the country and how it would respond (Kang, 2016).

Hurricane Matthew serves as another reminder of how slowly change takes place in Haiti. Jake Johnson, a research associate at the Center for Economic and Policy Research (Kang, 2016), reported a lot of time was spent on research and creating a disaster response plan after the 2010 earthquake, however, once the hurricane hit, the plan(s) were ignored and organizations began to work independently to respond to whatever was needed as quickly as possible.

2020 COVID-19 Pandemic

On March 19, 2020, Haiti became one of the last countries to report their first two cases of COVID-19 (Cénat, 2020). Three days later, the Haitian government declared a state of public health emergency and implemented prevention measures including the closing of schools, universities, manufacturing industries, and all transport hubs on land, air, and sea, as well as a curfew, the banning of public gatherings (Cénat, 2020). By April 20, Haiti reported only 57 cases of COVID-19 (although there was mistrust around the reporting) (Johns Hopkins University, 2020).

While prevention measures were put into place, experts still feared the spread of the disease due to Haiti's poor infrastructure and inability to respond to another disaster (Cénat, 2020). Approximately 35 % of Haiti's 11 million inhabitants live in the capital and they share 900 health institutions; half of which are located in the capital (United Nations, 2019). Before the pandemic, Haiti ranked 166th out of 178th countries for quality health due in large part thatit has less than one hospital bed per 1000 people (Mundi Index, 2019). Public health care spending in Haiti is 13 U.S. dollars per capita per year.

Neighboring countries like the Dominican Republic spend 180 U.S. dollars per capita a year (The World Bank, 2017).

With limited supplies, poor infrastructure, and a history of natural disasters, Haiti remained vulnerable to the spread of COVID-19. While fewer cases were being reported, as compared to similar countries, fewer testings had been performed as well. Access to reliable COVID-19 testing remained an issue (World Health Organization, 2020).

Beyond the need for supplies, more reliable education was needed. Many Haitians believed COVID-19 was a punishment as a result of sin, while others believed the disease was manufactured in order to kill off minorities (Louis-Jean et al., 2020). Without an accurate understanding of the disease, it was difficult to limit exposure and provide proper treatment for those who tested positive for COVID-19. There was a call for a national campaign to help educate the people of Haiti.

Vulnerable Populations

Vulnerable populations are defined as an individual or group with increased susceptibility to poor health outcomes rendering them disproportionately affected by the disaster event (Bloem, 2013). Several factors have been identified that cause a person to be categorized as vulnerable including: class, age, ethnicity, disability, and gender (Siegel & Mallow, 2021). Power structures of a community have also been identified as a way to recognize a vulnerable population, because those with more power have the opportunity to secure more resources to help with recovery in times of a disaster (Benfer & Wiley, 2020). Due to these and many other factors, women and children are most often considered vulnerable populations (Bloem, 2013).

Several studies show a correlation between relationship violence and a woman's decision to access reproductive health services (Blanc, 2001). Studies in Indonesia (Beegle et al, 2001) and in Pakistan (Hou & Ma, 2013) have shown a higher use of reproductive care and maternal health services were associated with increased female power in relationships (Beckman, 2018). The absence of this power leads to a vulnerability in the individual and/or population.

Reproductive Health

The WHO (2018) describes health as the state of being more than the absence of disease; it is the complete physical, mental, and social well-being with reproductive health referring to all reproductive functions. Reproductive health is the male and female reproductive system, during all stages of life, including the disease, disorders, and conditions that affect those (WHO, 2000). Reproductive health says that a person has the ability and responsibility to decide if and when they choose to have safe sex and reproduce. A person has the right to be informed and have access to safe, effective, affordable, and quality reproductive health care services including services surrounding pregnancy and childbirth (WHO, 2018).

Researchers have confirmed health services are weak among poorer populations **(**White et al, 2006) and even more so within the utilization of reproductive health care services (Ogundele et al., 2020).

Women in Haiti

Approximately one- third of Haiti's nine million inhabitants are women between the ages 10-49 years old (Population Reference Bureau, 2015). Women in Haiti are

considered disadvantaged due to many factors and can be seen in the following statistics; the life expectancy for women in Haiti is 63 years old compared with Haiti's neighboring country, the Dominican Republic, where women are expected to live on average 73 years (WHO– Global Health Observatory, 2015).

Haitian families tend adhere to conservative views of gender roles. Men are usually in charge of providing for the family through tasks such as farming, and the maintenance of the home and women are responsible for the children (Zubieta et al., 2020); however, family planning and birth control decisions are usually made by the man in the relationship (Fordyce, 2009).

Reproductive Health of the Women in Haiti

In 2018, the maternal mortality rates in Haiti were 529 women per 100 000 live births. This far outweighed the mortality rate of their neighboring country, the Dominican Republic (Schuurmans et al., 2021). It is estimated that 15% of those pregnancies will suffer from birthing complications (Bloem & Miller, 2013) This number increases after natural disasters (Bloem & Miller, 2013).

Consequences of Natural Disasters on Vulnerable Populations in Haiti

Haiti has a history of natural disasters including extensive flooding, multiple hurricanes, and epidemics (Kang, 2016). One of the most devastating was the January 2010 earthquake that hit almost the entire country that caused a poor infrastructure to be even further weakened. Approximately 49 health care facilities were declared unusable after the earthquake due to damage (Pan-American Health Organization, 2010). In some

cities, the earthquake destroyed almost 90% of the existing buildings and launched one of the largest disaster relief efforts in history (Kligerman et al., 2015).

While natural disasters can affect an entire population, women tend to experience a disproportionate level of consequences compared to men (Thurston et al., 2021). Nour (2011) discussed how women are often the most affected population in disaster areas and usually account for the majority of the inhabitants who are displaced. More specifically, women who are pregnant are one of the most vulnerable populations when a disaster strikes because of their unique needs (Callaghan et al., 2007).

Sexual violence and sexually transmitted disease risk increased right after the 2010 earthquake in Haiti (Joshi et al, 2014). In some areas affected by the earthquake, up to 50% of females reported to be victims of sexual assault due to non-intimate partners or strangers (Rahill et al., 2015). Behrman and Weitzman, (2016) provided evidence for other unintended consequences including a lack of access to adequate reproductive health services including condoms. The 2010 earthquate also negatively influenced the women's ability to negotiate birth control with partners and led to an increase in unwanted pregnancies. Studies have shown a higher number of young women and girls (as compared with young men and boys) suffered from Post-traumatic stress disorder even six years after the earthquake occurred (Cadichon et al., 2017).

Campbell et al. (2016) collected data before and after the 2010 earthquake disaster to show the effect of natural disasters on gender based violence. The study recruited female participants who attended local clinics and were living in a tent city or camp. It was discovered that a high rate of violence occurred before and after the

earthquake mainly caused by acquaintances, including boyfriends and husbands, demonstrating there was a significant need to put in place interventions that would provide care for women displaced after natural disasters (Campbell et al., 2016). These findings are consistent with similar studies that have focused on women who have been displaced after a natural disaster (Harville et al., 2011).

Reproductive Health Concerns After a Natural Disaster

When analyzing the circumstances surrounding relief from a natural disaster, the approach should be comprehensive and focus on a shift that starts with development and ends with a plan for sustainability. Social, environmental, and psychological factors should all be addressed (Weisz & Taubman, 2017). Additionally, a response to a natural disaster should include triage that is rapid but high quality (Merin et al., 2010). Disaster response is most effective when planned during a time of normalcy. In countries where resources are limited, disaster planning is often neglected much like in the country of Haiti (Benjamin et al., 2011).

Women, especially pregnant women have unique health needs making them more vulnerable after a disaster. Women are affected more than the rest of the population based on their special health needs (Gearhart et al., 2018). Several adverse effects of natural disasters have been linked to pregnant women following a disaster including preterm delivery and low birth rates (Tong et al., 2011), dangerous abortions, infertility, stillbirths, birth defects, and developmental disabilities (Casey et al., 2015).

Callaghan et al. (2007) discussed the role of public health in a natural disaster as well the impact it can have on infrastructure and people within a community. A study was

conducted by Harville et al., (2010) and the researchers found there was evidence that natural disasters caused a reduction in fetal growth and caused mental health issues for mothers that in turn affected their child's development in the following years. Relief workers should focus on vulnerable women with an emphasis on their mental health (Harville et al., 2010)

Conclusion

Disaster relief interventions need to recognize the potential for abuse of vulnerable populations. It is important for disaster relief organizations to have an effective communication plan that includes resource sharing to better meet the needs of those in most affected from a disaster(Campbell et al., 2016).

Vulnernable populations should be the first triaged when responding to a disaster. In order to do so, sysmatic and policy changes needs to occur. Additionally, disaster relief organizations need to dismantle stigmas surrounding reproductive health(Casey et al. 2015). The next chapter provides a comprehensive look at the research methods used in this study.

Chapter 3: Research Method

Qualitative case studies permit a researcher to recognize and study complex phenomena. Qualitative methodology is used in health science research to create theory, evaluate programs, and develop interventions (Baxter & Jack, 2008); therefore, a qualitative case study best fit the intent of the current study. The purpose of this qualitative case study was to increase the knowledge of the lessons learned from the COVID-19 pandemic, identify any changes that have occurred within the reproductive health care system, and make recommendations for continued improvements that will help to prepare the community and health system for the next predicted disaster.

To address the existing gap in reproductive health care disaster response, I used a qualitative case study approach by conducting key informant interviews with health care professionals providing reproductive health services. The Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings written by the WHO (2012) and the IAWG was used as a guide in creating data collection tools to aid in understanding the views and experiences of the participants. The following chapter provides the research design and rationale behind the choice of the design. It also includes a description of the questions I sought to answer, as well as the participant selection and data analysis plan.

Research Design and Rationale

I used a qualitative case study approach and conducted individual semistructured interviews with health care professionals working in the Haitian health care system who were currently providing reproductive health care services. Although the original intent of the study was to include interviews with pregnant or recently pregnant women in the

community, the inability to travel to Haiti to recruit and conduct the interviews during the COVID-19 pandemic made it improbable to include this population within the sample. Therefore, the target population of this study was limited to health care professionals, recruited electronically through social media and snowballing recruitment.

The community resilience theory and the reproductive justice theory were used as the foundation for this study. Both theories provided a useful lens for the framework of this study. Community resilience is an important element in risk reduction, or the lack thereof, after a natural disaster. Reproductive justice theory emphasizes the right of women in several areas of health, especially in areas of gender inequality and areas where there a lack of health care resources.

Research Questions

The research questions addressed in this study included the following:

RQ1: What are the experiences of the reproductive and child health care professionals providing antenatal, labor and delivery, or postnatal care who worked with women before and after the first case of COVID-19 in Haiti was discovered?

RQ2: Since the first case of COVID-19 was discovered in Haiti, what changes, if any, have occurred to the reproductive health care system in Haiti?

This study focused on the experiences of health care professionals who provided reproductive health care services with a focus on antenatal, labor and delivery, and postnatal services before and during the global COVID-19 pandemic in Haiti. The purposes was to gain an understanding of the reproductive health care system before and during the COVID-19 outbreak in Haiti.

Role of the Researcher

Bias is a methodical deviation from the most effective route to a goal. Bias is due in part to tendencies or inclinations of the observer. When bias is injected into a study, research can lose its validity depending on the significance of the bias (Krishna et al., 2010). When a question or hypothesis is formed by an observer or researcher, there is always room for bias and judgment. Questions are important and, for the most part, are inherently innocent because they give research a starting point, but as the data are analyzed, a researcher is faced with decisions on which direction to guide the research. Because of this, it is important for the researcher to develop the skills to identify their bias to make sound analysis (Moon, 2015).

In addition to affecting the validity of a person's research, other factors make it important to understand bias in research. Bias is not limited to a certain type of research; rather, it exists across all research designs and can be difficult to identify and eliminate. Additionally, bias can occur at each stage of the research process (Smith & Noble, 2014).

Although the concept of bias is more acceptable in quantitative research, experts agree bias should be recognized in qualitative research; to control it, the researcher should focus on rigor and trustworthiness (Galdas, 2017). Many methods can be used to provide trustworthiness and rigor in a study. A researcher should critically review their role in the process of the study including their influence while creating research questions, recruiting participants, selecting the desired location, and collecting data (Critical Appraisal Skills Programme, 2017). Research can only be as good as the researcher. A researcher must develop skills in the areas of sensitivity, flexibility, and

ensuring reliability and validity through verification strategies. No matter the enthusiasm of the researcher on the topic, they must remain subjective and flexible to determine the validity of the research (Morse et al., 2002).

I was informed by 10 years of experience working with and serving the community in Haiti. Since 2010, I had the opportunity to go to Haiti multiple times a year through various nonprofitand government-based to provide medical and/or disaster relief services. These experiences have given me a basic knowledge of Haitian culture and language, and enabled me to establish partnerships with people who served as a vital part in the data collection.

Originally, an interpreter was going to be hired to help with interpretation of the one-on-one interviews, however, when the data collection method was revised to include phone interviews instead of in-person interviews, non-English-speaking participants were excluded from the study to control bias. Interviews were conducted electronically through WhatsApp. Additionally, an interpreter was used in the survey creation process to help with appropriate wording and cultural sensitivity, as well as, the data recruitment tools as shown in Appendix B. Participants were selected using convenience sampling (Krishna et al., 2010), and snowball sampling.Personal interpretation was not brought into the outcome of the individual interviews (see Leedy & Ormrod, 2015). I disregarded personal experiences and beliefs unless they were relevant to the focus of the study (see Vivilaki & Johnson, 2008).

Methodology

Participant Selection

This case study originally focused on two populations; women who were pregnant or recently pregnant who used reproductive health services, and health professionals who provided reproductive health services. The first population originally chosen was Haitian women of childbearing age (18–49) who were pregnant or recently pregnant and were to be recruited to participate in one-on-one interviews that were to be conducted through phone or electronic video calls. The women would have had to have access to reproductive health services before and during the COVID-19 pandemic. However, in the final study, I recruited only health care professionals working directly in reproductive health and working in the field for at least 6 months prior to the COVID-19 pandemic in Haiti.

I obtained permission to recruit participants through a health care group on Facebook called Haiti Medical Aid Project whose 3,300 members consisted of personsactively providing aid or support to Haiti through nonprofits, government, or relief organizations. This group was an appropriate place to recruit participants because it represented a wide range of organizations, mainly health care, with access to a broad range of potential participants.

As demonstrated in similar studies, 10 interviews were conducted to achieve close to 90% saturation (see Guest et al., 2006). Saturation is achieved when there are enough data to reproduce the research, when the researcher can no longer obtain new information, and when new codes are no longer found (Fusch & Ness, 2015). When

saturation is not achieved, the validity of the study becomes unreliable (Fusch & Ness, 2015). It can be difficult to determine saturation before the data collection phase of a study; however, experts agree that estimating saturation is an important part of the planning process for research (Hennink et al., 2017). One of the most effective ways to determine sample size is to gain insight from previous studies with similar topics.

Studies about reproductive health in Haiti surrounding natural disasters seem to be rare, but studies about natural disasters (Perry, 2007) existed and were used as a guideline for the sample size selected in the current study. The participant population was small; therefore, the sample size would be small but would enable me to reach data saturation.

Purposeful sampling was used to recruit participants. Purposeful sampling occurs when a researcher determines participants based on their expertise/knowledge or ones who possess certain traits (Koerber & McMichael, 2008). Although purposeful sampling can lead to a narrow participant base or allow a researcher to lead to a conclusion of their choosing (Koerber & McMichael, 2008), purposeful sampling fit within the structure of the current study. Limits were put in place to control bias and ensure trustworthiness. Participants were recruited through a Facebook group named the Haiti Medical Aid Project, which consisted of over 3,300 members. I made an informal request to the group to see if they had potential participants of Haitian decent. Once expressed potiatial match was identified, I provided further details via Facebook messenger or email.

For recruitment of health care professionals, I posted in the Facebook group by providing a brief description of the research project and asking group members to provide

the names and contact information of potential interviewees. Once these individuals were identified, I sent out the recruitment email (see Appendix A and B for community members, who were not included, and Appendix C and D for health care professionals). Once someone agreed to be interviewed, I electronically sent the candidate the appropriate consent form and the screening questionnaire (see Appendix E and F for community members, that were never included, and Appendix G and H for health care professionals). If a candidate had requested a physical copy or was unable to complete an application due to limiting circumstances but was still interested in participating, I would have worked with local contacts to provide a physical copy; however, none were requested. Once the candidate was identified as an appropriate interviewee, I coordinated with the interviewee to determine an available time and method for the interview.

Instrumentation

The interview questions and format were informed by both the Interview Protocol Refinement Framework (Castillo-Montoya, 2016) and my knowledge of the Haitian culture. An example of Interview Protocol Matrix and Types of Interview Questions is in the appendix as presented by Castillo-Montoya (2016). Questions were created to elicit the participants' responses regarding their knowledge of maternal and child health services before and during the pandemic. The interview protocol also allowed an opportunity for the participant to share their experience of accessing services during the pandemic. I was aware while creating the questions not to include any questions that may be leading.

The interview questions were based on the criteria set forth in the Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings. The Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings came about through a collaboration of over 100 members from the United Nations and nongovernment organizations that make up the IAWG on Reproductive Health Crisis and recommendations given by WHO. The Field Manual contains best practices for crisis settings around the world. The first manual released in 1999 focused on Reproductive Health in Refugee Situations and has since been updated several times.

The IAWG believes the most comprehensive and highest quality reproductive health care services are achieved through a multisectoral integrated approach that includes key players from several sectors. Each member is needed in all stages of the process from assessment to implementation to maintain and planning (WHO, 2018). The newest revision of the manual was in 2020, which included incorporating safe abortion practices within unintended pregnancy prevention programs. Additionally, the IWAG places more importance on human rights, gender-based violence, and the link between maternal and newborn health (Foster et al., 2017). The guidance in the manual aligned with the research questions addressed in this study, thus making it appropriate to have used as a guide.

Pilot Study

The criteria for the pilot study were used to test and validate the interview questions. The same procedures were used for the main study once the questions were validated.

Procedures for Recruitment, Participation, and Data Collection

Data were collected through one-on-one phone interviews. Interviews allowed me to collect qualitative data that gave validity to the study through the participants' experiences (see Rubin & Rubin, 2012). I recruited health care professionals through a Facebook group named the Haiti Medical Aid Project. Once a potential participant was identified by a member of the group, I collected their contact information and sent the candidate a recruitment email (see Appendix A and B for community members, who was never included, and Appendix C and D for health care professionals). When the candidate agreed to the study, they electronically received the appropriate consent form and the screening questionnaire (see Appendix E and F for community members, who were never included, and Appendix G and H for health care professionals). Physical copies were also available but were never requested. Once the candidate had been identified as an appropriate interviewee, I coordinated with the interviewee to determine an available time and method for the interview.

The interviews were conducted through WhatsApp. The interview questions were informed by the Interview Protocol Refinement Framework (Castillo-Montoya, 2016) and the interpreter's knowledge of the Haitian culture. An example of Interview Protocol Matrix and Types of Interview Questions is in the appendix as presented by Castillo-Montoya (2016). Questions were created to elicit responses from participants regarding their knowledge of reproductive health services before and after the earthquake. The interview protocol also allowed an opportunity for the participant to share their experience of accessing services during that time. I was aware while creating the

questions to avoid any questions that may be leading. During the interview, participants were asked open-ended questions to elicit information based on their experience. Questions were formed in a way to gather information on the participants' knowledge and experience providing reproductive health services before and during the pandemic.

Interviews were audio recorded, which participants were aware of priorto the interview. . Consent was obtained before the interview was scheduled and again verbally at the beginning of the interview. Interviews were scheduled for an hour. It was my goal to complete the necessary date collection over the course of 30 days.To preemptively address cultural and language barriers, a translator was used to help advise and translate materials used for recrutiment. (The translator signed a confidentiality agreement before helping with the research.) The translator had experience in translating Creole and English in a health care setting on numerous occasions and was therefore familiar with terms associated with reproductive and general health care. Once the interviews and audio recordings were complete, I transcribed them to a cloud drive in electronic format, to which only I have access. Follow up was planned if requested by a participant, none requested follow up.

Data Analysis Plan

I sought to answer the research questions through the data by usingthe following research questions: Question one - What are the experiences of the reproductive and child health care professionals (providing antenatal, labor and delivery, or postnatal care) who worked with women before and after the first case of COVID-19 in Haiti was discovered? Question two - Since the first case of COVID-19 was discovered in Haiti

what changes, if any, have occurred to the reproductive health care system in Haiti? Once the interviews were manually transcribed, I interpreted the data using an inductive approach. The inductive approach to analyzing qualitative data can help to format raw data into a summary format which allowed me to look for patterns and create categories and themes among the raw data (Azungah, 2018).

Issues of Trustworthiness

Validity is vital to a qualitative research study and needed to demonstrate that it is scientific in nature. Ensuring validity allows for a researcher to be objective in their analysis, however it can include different ideas like rigor, trustworthiness, and appropriateness (Hayashi Jr et al., 2019). While it can be difficult to reach validity, credibility, and reliability in qualitative research, experts agree on the need to assure them in a study (Konradsen et al.,, 2013).

Credibility

Credibility orinternal validity, can be achieved through several methods including member checking, triangulation, saturation, reflexivity, and peer review (Simon & Goes, 2016). Triangulation can be achieved through multiple forms within a study including data source or perspective triangulation which compares participants accounts of the same experience (Roulston, 2018). This study documents the perspective of multiple participants and their views of the reproductive health care system during COVID-19 in Haiti.

Transferability

To establish transferability orexternal validity, a study can interject techniques like thick descriptions and incorporating variations in participation selection (Simon & Goes, 2016). If applied properly, transferability suggests findings from one study can be applied to similar studies (Daniel, 2019). As suggested by Daniel (2019), I attempted to create a true description of the phenomenon and provide efficient detail of the fieldwork in order to create transferability for this study to aid in similar studies.

Dependability

Dependability, the qualitative approach to reliability, can be achieved through triangulation (Simone & Goes, 2016).Triangulation is achieving confidence in a study through multiple sources or findings (Farquhar, 2020). Because of the limited resources and setting of this research, data source triangulation or the inclusion of multiple participation accounts (Carter et al., 2014) was achieved in order to assure dependability.

Confirmability

Confirmability is achieved by asessing of how well the study findings are supported by other data. When confirmability is achieved, it provides trustworthiness within the study because the findings are solely defined by the collected data and not the researcher's motivation (Kyngäs, 2020). Confirmabilty was achieved through reflexivity by acknowledging my role as the researchers and by examining my thoughts on the responses throughout the interview process.

Ethical Procedures

All recruitment and data collection documents were translated into Haitian Creole and were culturally sensitive. Cultural sensitivity was accomplished by using the approved translators to translate the recruitment tools into Haitian Creole at a level that was understood by the participants, however, all questions were asked in English. Participants were allowed to refuse a response to any question and end the interview at any time. This was conveyed to the participants verbally and in the informed consent in writing before any data was collected. All interview data remains confidential. Interview data excludes names of participants but includes other details including title and job description.

Data is being kept in encrypted files on my computer. All computer files are being kept in a password-protected file that will be maintained on my password-protected computer. Hard copy documents are being maintained in a locked cabinet in my office. All raw data will be kept for a period of 5 years and will then be destroyed, as required by Walden University. Computer files will be deleted, and hard-copy documents will be

shredded. Due to the data collection method, participants were not given a stipend for their interview.

Summary

Globally, issues in reproductive health are the leading cause of illness and death in women and girls of child-bearing age (United Nations Fund for Population Activities, & UNPF, 1990). Reproductive health crucial to the humanitarian response created by natural disasters because women and girls in unstable environments are at risk for high mortality, sexual violence, unwanted pregnancies, and dangerous abortions (Casey et al., 2015). During and after a natural disaster, access to reproductive health services are unstable (Banatvala & Zwi, 2000) while the need increases (Austin et al., 2008). For a majority of disaster planning, reproductive health care remains a provision in in a standard of health, however, the quality and access to that care is unpredictable based on setting, availability of resources, and preparedness (Casey, 2015).

This chapter examined the methodology, data collection, and data analysis process that was in this qualitative study to answer the three research questions presented at the beginning of the chapter. Participants included health care professionals working in the reproductive health care system in Haiti. Participants were selected through random sampling and snowball sampling and the research tools created by myself were heavily influenced by the Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings. Chapter 4 covers the data collection process, data analysis, and results of this study.

Chapter 4: Results

The purpose of this study was to discover the lessons learned from the COVID-19 outbreak in Haiti, within reproductive health care, with the intent to better prepare the community and health system for the next predicted disaster. To address the gap, I used a qualitative, case study approach by conducting one-on-one interviews with health care professionals, who had or were providing reproductive health care services in Haiti, before and during the COVID-19 pandemic. The study was conducted with the objective of answering the following questions: What are the experiences of the reproductive and child health care professionals providing antenatal, labor and delivery, or postnatal care who worked with women before and after the first case of COVID-19 in Haiti was discovered?; What are the experiences of pregnant women receiving reproductive and child health care services, including antenatal, labor and delivery, and postnatal care, before and after the first case of COVID-19 in Haiti was discovered?; Since the first case of COVID-19 was discovered in Haiti, what changes, if any, have occurred to the reproductive health care system in Haiti?

This chapter provides the details of this study and the effects of COVID-19 on the reproductive health care system in Haiti. I also discuss the setting and the influence it had on the participant's experience in this study, including political turmoil and a wide range of health disparities, the resources and funds available to meet the needs of Haiti's most vulnerable populations. This chapter also includes the demographics of the health care professionals who agreed to participate, how the data collection evolved over the course

of the study, due to the changing environment, and what the data revealed for those who served in the reproductive health care system in Haiti during the time of the pandemic.

Pilot Study

A pilot study was conducted through one-on-one phone interviews with health care professionals who served pre- or postnatal women when COVID-19 was first detected in Haiti. Participants were recruited through a Facebook group named the Haiti Medical Aid Project with permission given by the group administrator. Information was released on a Facebook post giving the details of the study and a request for participants. Once a participant was identified by a member of the group, I collected the necessary contact information and sent the candidate a recruitment email (see Appendix A).

Once a candidate agreed to the study, they electronically received the consent form and the screening questionnaire (see Appendix E/F). Physical copies were available upon request; however, none were requested. As consent forms were returned electronically, I and the participant found an appropriate time to connect for the interview. Although several options were provided to participants to conduct the interview virtually, all participants opted to use WhatsApp. Interviews were voice recorded and stored on a password-protected cloud-based server. None were video recorded. The participants were asked a series of open-ended questions that elicited an informative discussion on their experience and the climate surrounding COVID-19 and reproductive health care in Haiti.

Setting

From the time the data collection started to the time the last interview concluded, several major environmental factors affected the nation of Haiti including: the assassination of their president Jovenel Moise on July 7, 2021, a 7.2 earthquake on August 14, 2021, and a tropical storm 2 days later. Although some interviews were conducted before these events occurred, others happened after, and were referenced by a few participants. Additionally, some interviews were rescheduled, or the time was cut short due to the unstable nature of these happenings.

Assassination of President Jovenel Moise

On July 7, 2021, the president of Haiti, Jovenel Moise, was assassinated in his home in Port-au-Prince, Haiti, leaving the acting Prime Minister, Clause Joseph, to take over responsibilities for the nation (Niño & González, 2022).). Niño & González. (2022) stated a state of siege was declared (Dupain et al., 2021).

7.2 Earthquake and Tropical Storm Grace

On August 14, 2021, a 7.2 magnitude earthquake hit Haiti (Martinez, 2021). The earthquake left more than 2000 people dead and almost 800,000 effected (Maurer, 2022). Less than 2 days later, Tropical Storm Grace hit the country causing flash flooding and mudslides continuing to delay recovery(Pasch, 2022). Hospitals were overwhelmed, and local churches that were serving as safe places, from gangs of the political turmoil and aid for those affected by COVID-19, were damaged (Frontieres, 2021).

Demographics

The study consisted of 10 reproductive health care professionals including general physicians, obstetricians, midwives, and nurses. All professionals had worked in Haiti at the time the first case of COVID-19 was detected. The participants ranged in location, but most were located in or around Port-au-Prince or in Northern Haiti in or around Cap-Haitien. There was a mix of rural and urban health care professionals. Some participants ran and worked in their own established clinic, while others worked for a local clinic or a government-funded hospital. Other participants worked in a not-for-profit clinic. Demographic data were not collected.

Funding for each workplace varied. Some health care facilities were funded by foreign money or charities mainly located in the United States. Other facilities were funded by the patients who sought services, or by government funding. Some received funding from multiple sources. All participants spoke English. There was a wide range of English proficiency, and there was a recognizable language barrier for some. All participants had access to the WhatsApp with minimal issue connecting due to the service provider. However, there was some issue connecting due to economic and political turmoil. Road closures and threat of violence delayed some interviews.

Data Collection

The original intent of the study was to cover a broader view of natural disasters in Haiti, including the 2010 earthquake, as well as conduct the interviews in person in Haiti. When COVID-19 caused the shutdown of most nations and the CDC warned against any travel, the study was altered to focus on the effects of COVID-19 on the reproductive

health care system to collect more real-time data.. Data collection methods became limited, which caused all interviews to be conducted virtually. Recruitment strategies were also changed to virtual, which allowed me to leverage social media to find participants. Also, snowball sampling was added to recruit more participants.

The consent forms were collected through email, WhatsApp, or Facebook messenger. All interviews were conducted over the phone through WhatsApp and were voice recorded on my computer then immediately uploaded to cloud-based storage. Transcriptions were added to the voice recording once all interviews were conducted. Physical notes from the interview were kept in a locked filing cabinet. All participants were aware of the audio recording prior to any questions being ask, and verbal consent was given.

Each participant was asked the same 20 open-ended questions. Although I assumed that interviews would last about 45 to60 minutes, they ranged from 40 to 90 minutes with the average length around 60 minutes. Data collection took much longer than expected due to the external turmoil of the country. Once recruitment began, interviews took about 60 days to complete. Instead of using a translator during the interviews, I conducted the interviews in English. This presented a small language barrier that had the potential to affect the data collected in a minor way. No follow-up plan was given to the participant, but it was explained that they could receive a copy of the final study once the study was completed and upon request.

Data Analysis

After transcribing the data, I used verbatim responses to discover codes, categories, and themes (see Table 1/2). The data were separated into two data sets: pre-COVID-19 conditions and post-COVID-19 conditions based on the research questions. Once themes fully emerged from each data set, the two sets of data were compared for pre/post-COVID-19 similarities and pre/post-COVID-19 differences. Five major themes developed from pre-COVID-19/post-COVID-19 similarities: (a) partnerships directly impact health outcomes, (b) impact of disparities and the need for equity, (c) poor infrastructure and educational impact, (d) lack of reproductive health care, and (f) limited health care delivery (see table 1). From the pre-COVID-19/post-COVID-19 differences, seven themes appeared: (a) decrease in social support in all regions, (b) decrease of community support, (c) lack of reproductive health care and increased home births, (d) increased disease prevention and limited consequences of COVID-19, (e) decrease in all health care funding sources, (f) very limited health care delivery and minimal quality care, and (g) negative impact of fear (see table 2). The following discussion of themes demonstrates how the reproductive health system and its health care disparities stayed the same or evolved over the course of the COVID-19 pandemic in Haiti.

Table 1

Pre-COVID-19 and Post-COVID-19 Similarities

Theme	Category	Code
Partnerships directly impact health outcomes	Creating partnerships	Partnerships - international Partnerships - local
Impact of disparities and the need for equity	Equity	Resource equality Health care disparities Inequality
Poor infrastructure and educational impact	Economic disadvantages	Education Poverty Transportation COVID-19 impact Lack of transportation
Lack of reproductive health care	Reproductive health care	Reproductive rights Reproductive health care Habits of pregnant women Reducing risk (reducing birth complications)
Limited health care delivery	Health care delivery	Limited services Health care provider Quality care Fee for service

Theme 1: Partnerships Directly Impact Health Outcomes

Participants were asked to describe how partnerships and the community at large played a role in helping vulnerable women obtain reproductive health care services and the social support needed to attain a positive health outcome. According to interviews, partnerships have played an important role in Haiti and health care delivery. Some of the most frequently occurring comments were about the role of the midwife and the relationship between community members.

More than half of the participants described the important, consistent role of the midwife to the reproductive health care system before and after COVID-19. “Before COVID-19, this community, they started as a midwife and do the best they can to improve and give the best service they can each day” (Participant I-118). The participant

continued that “they created a midwife organization since 2010 so they can all come together to give someone help if they need it.”

Participant I-119 said “the TBA (traditional birth attendant) or midwife has a good relationship with the practitioner; you go to her for the information.” Interviewees described that doctors and health care organizations would collaborate with a midwife who would go into the community and meet the women who were pre- and postnatal in their homes, gaining trust with the woman and her family. “They work pretty close with midwife and if the pregnancy is normal, they leave it to the midwife and if it complicated, they work with the OB” (Participant I-122). If a complication occurred with the pregnant woman, the midwife informed the physician or brought the woman to the hospital. Even after COVID-19 came to Haiti, midwives would help. They “would still go door to door to spread the message” (Participant I-119).

A few participants said most women have homebirths in Haiti for reasons including; lack of financial resources and lack of transportation. Participant I-116 said “more than 70% have birth at home not at the hospital.” “They don’t want to deliver at the hospital because you can’t pay or you get terrible care and if you don’t pay, you can’t leave the hospital” (Participant I-121). Participant I-116 continued “not equality health care, what we do is the TBA are in the community, they would prefer to see the TBA than go to the doctor or the hospital.”

International relief and in-country organizations (the United States was most often mentioned among participants) that received funding overseas seemed to be a consistent resource for some communities. “This community is a well-served area. There is a lot of

foreign help" (Participant I-118). Participant I-117 said "somewhere an international organization has a program helping especially woman has malnutrition or a complicated birth, also there is another health care clinic when the government helps but there is not a lot." Although funding decreased in some areas during the pandemic, areas with well-established international organizations continued to provide quality care even through the pandemic. Participant I-115 said

> women who were private could go to the clinic in cap Haitian and give birth without paying a penny; it was probably financed by a U.S. organization like USAID, but the service stopped after 2018. If women have problems now, they have to figure it out on their own. There is no such support to help the mother.

Participant I-118 agreed

> it did not change. We have the international organization in the community with lots of people across the world that help with masks and soap and put money together and Clorox but again there are no cases. People have stopped helping locally.

Missionaries were said to be a great resource as well, but it varied from community to community. Participant I-118 said "-hey have a lot of missionaries in their area. That is why the health care system is not too bad in the community but it varies from community to community." Participant I-118 went on to say they "created a midwife organization since 2010 so they can all come together to give someone help if they need it. It started with the help from the missionaries from America."

Theme 2: Impact of Disparities and the Need for Equity

Resource equity, health care disparities, and inequality of care was a consistent topic among all interviews before and after COVID-19 was discovered in Haiti. Most participants recognized the inconsistencies of resources and health care quality across the nation. Interviewees were asked to describe the quality of reproductive health care in Haiti before and after COVID-19, as well as the types of resources available to patients. Participant I-122 said

> services vary from hospital to hospital, depending on where they are. If they have a big opportunity with good materials they are able to give the service but other hospitals will try to provide the service but it is not as good if they don't have the material. Lack of material and finances so some service is very poor.

Participant I-116 echoed "the health care was poor before COVID-19 and the system, not enough medicine or facility, people in Haiti cannot pay for their own health care." Participant I-117 said

> women lose babies because they cannot afford or get to the services they need fast enough. Sometimes pregnant women lose their baby because of transportation and lack of clinic depending on the community you are in, so you have to transfer to somewhere else. It could mean the baby or the mother could die.

Participant I-117 went on to say

> the place where the patient is coming from some get access easily and some do not. It can come with complication and the baby could die and it could die inside

> of them and the woman does not even know. It depends. Some can have a lot of issues.

Participant I-124 mentioned, “it varies from area and clinic, some clinics were equipt and the people that attend can financially pay for their services but other clinic the person can’t even pay for the medication.” Participant I-118 said, “there are a lot of difficulties for the pregnant woman to go to the clinic. They do not have money and they do not have people to sit in their house with their kids.”

A few issues frequently discussed by participants was the poor condition or quality of care from the health care facilities and lack of staff. “The health care was poor before COVID-19 and the system, not enough medicine or facility, people in Haiti cannot pay for their own health care.” (Participant I-116).

> Those kind of services (reproductive) vary from region to region and some hospital will provide any type of care for free but in Port-au-Prince you will not get that care and if they go to the hospital depending on the needs they have the patient will not get it because they do not have resources and it could cost him his life (Participant I-120).

Participant I-121 said,

> the quality of care is poor, doctor and nurses are not motivated to provide you good care because they are not getting paid well. Even the hospital we transfer to will say they do not have any beds because they don’t want to take care of you patient because they aren’t getting paid a lot of money to do it.

Similarly, according to Participant I-120, “The service they (some clinics and hospitals) provide, the quality wasn’t enough. At the end, you decide to have the patient go somewhere else because the quality wasn’t efficient.” Other participants agreed, “The quality is not as good. They do not have enough hands, OB or health care professional to help them out.” (Participant I-124). Participant I-123 agreed, “

> they don’t have enough person to help and it might be a birth with a lot of complications and they don’t have enough material and some people wait until the last day and they don’t come when they are pregnant so this sort of issue comes with a lot of complications.

As illustrated by the following quotes, participants commented on inequalities in the delivery of health care and the inconsistencies amoung available resources.

Participant I-120 said,

> those kind of services based on the community you are located, somewhere someone might get to birth the baby but if they are in danger and they can’t find an ambulance but in some community if someone has a car, they will help with transportation, if someone gives birth, depending how she feels if she needs to spend the night for surgery the next day, they put them in a place to wait for the extra service. It depends on the area like PAP for it to be determined. You might have to figure it out on your own. Some communities, while poor, made a significant effort to provide care.

Participant I-122,

> there are so many people that will engage themselves so if it is complicated, they

> will take care and make sure this person is taken care of to make sure they get to the right place at the right time. They will use their own transportation and money to help. This won't happen across the country.

Participant I-122 went on to say, "Most of the time they get to the hospital someone will die depending on the distance because of the infrastructure and sometimes the community will come together and save that life."

Theme 3: Poor Infrastructure and Educational Impact

Economic disadvantages included lack of education for medical staff, low level of education in the community, povertylack of transportation, and the impact of COVID-19 on an already challenged health care system in Haiti.

Government aid to support the health care system seemed limited or nonexistent for most areas, according to participants. Participant I-115 said,

> the only way people, especially during COVID-19, if they have a patient who has COVID-19 goes to the hospital, the family provides everything they need because even the government, they give nothing out. You have to bring your own stuff and security to prevent COVID-19 to get home safely.

Participant I-122 echoed, "Financially, they (clinics) are struggling, they only way they are getting finances is if a patient pays for the services. What they received from the government was so low."

Lack of transportation to obtain health care services was frequently mentioned by participants. Participant I-121 stated, "The barriers (before and after) are still the same, lack of resources, lack of support from your husband, lack of transportation." Some

interviewees mentioned the need to transfer to clinics even further away from the patients home due to lack of availability of health care. “Sometimes pregnant women lose their baby because of transportation and lack of clinic depending on the community you are in so you have to transfer to somewhere else. It could mean the baby or the mother could die.” (Participant I-117).

Participants also mentioned the poor quality of the health care system. A participant (Participant I-121) said,

> the quality of care is poor, doctor and nurses are not motivated to provide you good care because they are not getting paid well. Even the hospital we transfer to will say they do not have any beds because they don’t want to take care of you(r) patient because they aren’t getting paid a lot of money to do it.

Once COVID-19 came to Haiti, supplies were difficult to get in to the country. It lead many facilities to close their doors. Participant I-116 mentioned, “The biggest barrier was care. Even doctors because they were scared the health care professional was not available and there was no finance. Many were waiting for money from family in US but with COVID-19, they lost jobs.”

> The biggest barrier there are 2 things you need, qualify staff and you need finance during COVID-19 because how can a group of people work if there is no finance. The staff needs to be qualified and the money needs to be there to pay them (Participant I-115).

Participant I-118 said, “They do not have enough materials.” While Participant I-120 explained, “A lot of clinics closed because of lack of material and the physician was scared so people needed to travel further and find transportation.”

Additionally, families had even less money to pay for necessary health care services because jobs were limited, and schools were closed which was a main source of food for many families. “They got food on a daily basis. Schools being closed made it a lot harder on families because kids eat at school.” (Participant I-121).

One advantage that arose from the research was the generous nature of community members. For example, if a woman gave birth at home and there was a complication, the community would do their best to work together to get her the resources she needed including a ride or the money to pay for an ambulance. “If a pregnant woman came with a fever, the whole system - they try to see if they can do the intervention for what they need.” (Participant I-123). Participant I-118 explained, “The pregnant woman or someone about to give birth, if she had trouble, they tried to get a midwife to help or to help take a moto to a taxi.” Another, Participant I-122 added, “There are so many people that will engage themselves so if it is complicated, they will take care and make sure this person is taken care of to make sure they get to the right place at the right time. They will use their own transportation and money to help.” If the community was unable to help, many patients would go without (Participant I-115). Participant I-115 said, “They would sit and wait until something happens.”

Theme 4: Lack of Reproductive Health Care

Participants were asked to describe the structure of the reproductive health care system in Haiti before COVID-19, what resources existed after the first case of COVID-19, and their experiences delivering those services during the onset of COVID-19. Based on their responses, reproductive health care and reproductive rights in Haiti seemed very limited with a variety of factors playing a role. A participant (Participant I-121) mentioned, “The maternal health care system is nonexistent.” Participant I-121 went on to say, “No systems in place to protect the woman.”

Very few facilities specialize in reproductive health care exclusively and birthing complications are not always dealt with appropriately or in a timely manner. Participant I-115 stated, “There are only two places to go specifically for those with problems with babies but others have to go to general physicians.” And Participant I-119 discussed, “One the 4 organizations I talk about and 1 is 100% for pregnant women.” Multiple participants gave the same statistic that over 70% of births happen at home because of the lack of quality health care facilities “More than 70% have birth at home not at the hospital.” (Participant I-116).

> Most women in Haiti, 70% of women deliver at home or have a locally trained midwife or by a witch doctor. They don’t want to deliver at the hospital because you can’t pay or you get terrible care and if you don’t pay, you can’t leave the hospital (Participant I-121).

Due to lack of options for women to deliver in a health care setting, a majority of perinatal women gave birth at home. “More women would have babies at home because

of COVID-19. Only come to the facility if it was an emergency." (Participant I-116). "For the first 3 months with COVID-19, it was very hard for pregnant women to go to the clinic, it was mostly for emergency" said Participant I-124. Participant I-124 went on to say, "they must give birth at home with the midwife. They would go to the hospital if complications but there was not much access because everything was shut down."

Family planning was also a topic frequently mentioned.. While some family resources were available to women, many times they were not utilized based on fear from partners.. Participant I-121 said,

> we offer family planning services and offer things like condoms and depo shots and the women like the depo shot better because their husbands don't have to know they are on family planning. A lot of husbands don't want them to know they are on family planning but they don't have the resources to have babies all the time and they don't want to have babies all the time…(there are) no systems in place to protect the woman. The barriers are still the same (after COVID-19), lack of resources, lack of support from your husband, lack of transportation.

One of the most beneficial resources for perinatal women are the midwives. As discussed previously, these health care providers are widely accepted and trusted by the community. What they do now is to help the midwife more because of COVID-19 because they don't want to receive a lot of people in the clinic, so they train the midwife more and give her more things for health care and spread the word across the community. (Participant I-123).

Participant I-116 said,

> they are trying to recreate and train the traditional birth attendants. Give education and training to say what they can do and not do and what symptoms happen to send them to the hospital. It helps a lot the (infant) mortality a lot.

Participant I-122 stated, “They work pretty close with midwife and if the pregnancy is normal, they leave it to the midwife and if it complicated, they work with the OB.”

Theme 5: Limited Health Care Delivery

When participants were asked to discuss health care delivery in Haiti, four main categories were frequently discussed: limited services, the status of health care providers, quality of care (or lack thereof) and the cost of service. Health care delivery options remain limited and in some areas were nonexistent. “A lot of clinics closed because of lack of material and the physician was scared so people needed to travel further and find transportation.” (Participant I-120). “With COVID-19 a lot of organizations were paralyzed because some were closed.” (Participant I-116). Participant I-116 also stated, “the biggest barrier was care. Even doctors, because they were scared, the health care professional was not available and there was no finance.”

Many participants mentioned the lack of available staff once COVID-19 hit causing the quality of care to diminish even further.. Others causes included; fear of the virus, lack of motivation, and availability due to underfunding. An interviewee, Participant I-119, discussed, “Everyone was very afraid. Not good services because it was very understaffed…they did not have enough nurses to provide services.” Also,

"some staff went on strike because they did not have supplies or masks. But there were rumors and political problems." (Participant I-119).

When they heard about the first case it was complicated for the health care professional and the patient because the health care professional was afraid to go to work and the patient was afraid to go to the hospital. It was very complicated (Participant I-122).

Midwives and home births remained the most frequently mentioned form of health care delivery for perinatal women. "(They) used traditional birth attendants to avoid/decrease because the midwife could help the pregnant woman and send them to the center" (Participant I-116). "Traditional birth attendant, like a midwife, like a strong woman and they help the young woman to make birth, more than 70 % have birth at home not at the hospital" (Participant I-116).

Even within foreign-funded or internationally ran clinics, services were difficult to obtain due to the large demand. Participant I-115 said,

> when you have a kind of health care system when financed by US organization or Haitian government, the service is always limited because they have a lot of people needing to receive services, they have a large amount of people to receive and when you go there as well, people can sit all day without even being seen without a doctor because there are so many people even if the person has the finances but the doctor are very limited.

It was mentioned during a different interview that it was not uncommon for patients to wait all day to see a service provider only to have to leave when the clinic closed with never having seen anyone for their illness or need.

> Sometimes with prenatal someone will come at 8am and won't be seen at 5pm. The physician is so tired and they aren't treated the way they need to be treated because it's the end of the day. It's not good because of fatigue and not enough resources. (Participant I-123).

Inconsistencies incost of service existed between regions and health care facilities. If a woman was able to find a private clinic to meet her needs, there may be an opportunity for her to receive quality care and/or deliver her baby without having to pay a fee. "Women who were private could go to the clinic in Cap Haitien and give birth without paying a penny." (Participant I-115). For others, they were forced to go to government-ran hospitals that required the woman to pay before she took her baby home.

> The only way people, especially during COVID-19, if they have a patient who has COVID-19 goes to the hospital the family provides everything they need because even at the government, they give nothing out. You have to bring your own stuff and security to prevent COVID-19 to get home safely (Participant I-115).

Some area clinics allowed the woman to pay what she could but it but a strain on the financial health of that facility especially during COVID-19. Participant I-124 said, "It varies from area and clinic, some clinics were equip and the people that attend can financially pay for their services but other clinic the person can't even pay for the medication."

Table 2

Pre-COVID-19 and Post-COVID-19 Differences

Theme	Category	Code
Decrease in social support in all regions	Social support	Social support – self
		Social support - individuals (i.e. friends and family)
		Social support - midwives
		Social support - community support disparities
		Social support - community resources
		Social support - community support - following first case of COVID-19
		Social support - community support - currently
Lack of reproductive health care and increased home births	Reproductive health care	Reproductive rights
		Reproductive health care
		Habits of pregnant women
		Reducing risk (reducing birth complications)
Increased disease prevention and limited consequences of COVID-19	COVID-19 consequences	Current COVID-19 impact
		Reducing risk (disease prevention)
		Disaster preparedness
		Social media for information
Decrease in all health care funding sources	Types of health care funding	Foreign aid/international health care
		Private health care
		Government health care
Very limited health care delivery and minimal quality care	Health care delivery	Limited services
		Health care provider
		Quality care
		Fee for service
Decrease of community support	Community support	Community support – transportation
		Community support - financial
Negative impact of fear	Fear	Fear from the community
		Fear from the health care provider

Theme 1: Decrease in Social Support in All Regions

Participants were asked to describe how local communities and organizations assisted with helping perinatal women to obtain social services during COVID-19. The source of social support varied among participant responses including self, friends and family, midwives, and community support. While social support seemed strong before COVID-19, several interviewees mentioned that the support received from others

decreased significantly when the country started to shut down. Participant I-116 said, "The relationship was not the same…everyone was afraid." "When COVID-19 hit the country and people was afraid to help someone because they don't have info. They heard but didn't know how to react and there was no training on how to help." (Participant I-115). "The community wanted to engage but everyone was afraid and so this type of helped slowed down. They didn't want to help and get the virus. Some people were neglected." (Participant I-122).

More than one participant mentioned that infected persons were judged and even in danger of being killed for fear they would spread the virus. "The differences is in the beginning they heard I (someone) have COVID-19 and instead of people coming to help they would just run away or give those people some harassment" (Participant I-123).

> When COVID-19 hit and during COVID-19, somewhere, most of the community when they understand when someone is coughing and having fever, instead of helping they will run away. In some places they wanted to kill that person because they know they will infect everyone. It was a poison for everyone (Participant I-117).

"If someone had COVID-19, they didn't want to help them out they almost wanted to kill them." (Participant I-122).

> Once people began to educate themselves on how the virus worked and masks and hand-washing stations became more readily available, people began to offer more social support to their community, resuming as it was before. Those kind of support were getting back to normal during COVID-19 as people try to

> understand how to protect themselves and how to help others. They were trying to learn how to bring support to pregnant woman. Depending on what they see, they would start to educate themselves or educate others even if they had COVID-19 or not. (Participant I-122).

"During COVID-19 we stop serving the community but now that we understand we start to help the community with a mobile clinic." (Participant I-123).

A resource that became vital to the community were midwives. They continued to go door to door in the community to educate and provide the necessary services.

> What they do now is to help the midwife more because of COVID-19 because they don't want to receive a lot of people in the clinic, so they train the midwife more and give her more things for health care and spread the word across the community. (Participant I-123).

Participant I-116 added, "The TBA is a really good person, they do not get payment for it so we would distribute masks, gloves, and hand sanitizer." Participant I-119 said, "Midwives still go door to door (with information)." Because trust had been built previously, the midwife had better access to the community and the women in need. Overall, social support over all sources (excluding midwives) decreased for a time but gained momentum once the community had more education and ways to protect themselves against COVID-19.

Theme 2: Decrease of Community Support

Community support was the most frequently discussed change in support among participants. Participants were asked to describe the community involvement in helping

perinatal women obtain reproductive health care services and social support, as well as, what part did they play in reducing the risk for vulnerable women. Infected persons became the target of fear and violence from the same community that had previously rallied around them when they were in need. Participant I-122 explained, “The community wanted to engage but everyone was afraid and so this type of helped slowed down. They didn’t want to help and get the virus. Some people were neglected.” Participant I-116 also expressed, “It (community support) happened but it decreased. The relationship was not the same...everyone was afraid.”

Some participants admitted that they themselves stopped helping the community until more was known about the disease. “When COVID-19 hit the country and people was afraid to help someone because they don’t have information. They heard but didn’t know how to react and there was no training on how to help.” (Participant I-115). “It was like everybody was completely afraid. And to approach someone, especially if they are coughing, they did not get any material, like masks because at first they didn’t have any idea.” (Participant I-120). “The experience was very stressful because we have no idea and we have no idea what is going on and how to help those with COVID-19.” (Participant I-117).

The community simply did not have enough information to make an informed decision on how to help their neighbors so fear drove decisions making. Further, on in this discussion, the negative impacts of fear will be discussed.

Theme 3: Lack of Reproductive Health Care and Increased Home Births

During the interviews, the participants were asked to describe the quality of the reproductive health care in Haiti and how it changed after COVID-19. Interviewees discussed reproductive rights and reproductive health care, or the lack thereof, and the habits of pregnant women in Haiti. Infant mortality remained in question (Participant I-116). Reproductive rights decreased even further and homebirths increased creating a higher need for midwives. "More women would have babies at home because of COVID-19. Only come to the facility if it was an emergency." (Participant I-116).

Even before COVID-19 began in Haiti, the reproductive health care system did not provide protection for pre, peri, and postnatal women. Participant I-121 explained, "The maternal health care system is nonexistent." And went on to say, "No systems in place to protect the woman." When the country of Haiti began to shut down due to COVID-19, it caused an immediate wave of consequences for these same vulnerable women.

Participant I-124 alleged,

> for the first 3 months with COVID-19, it was very hard for pregnant women to go to the clinic, it was mostly for emergency… They must give birth at home with the midwife. They would go to the hospital if complications but there was not much access because everything was shut down.

One of the consequences of this gap in the system is women would not go into the clinics to receive the prenatal care they needed. Participant I-119 said, "The pregnant woman didn't go out. Some pregnant woman live in the area but they refuse to go to the

center." "Something is very rare, pregnant women to come to the hospital on their first month of pregnancy. Usually they will come when they are 3-4 months pregnant instead of coming during the first four weeks." (Participant I-115). Participant I-116 said, "Not equality health care, what we do is the traditional birth attendant are in the community, they would prefer to see the TBA than go to the doctor or the hospital." Additionally, Participant I-120 stated, "A lot of pregnant women have never been to the hospital and they won't go until the very end if the pregnancy is complicated. It could cost them their life because it's too late because it's a long distance." Physicians encouraged pregnant women to stay home. Health care providers collaborated with midwives to further train them on what to do during birthing complications. Participant I-124 described,

> they must give birth at home with the midwife. They would go to the hospital if [there were] complications but there was not much access because everything was shut down... For the first 3 months with COVID-19, it was very hard for pregnant women to go to the clinic, it was mostly for emergency. Now it is normal for masks and washing hands and getting clean and it's starting to get back to normal.

Participant I-123 said

> what they do now is to help the midwife more because of COVID-19 because they don't want to receive a lot of people in the clinic, so they train the midwife more and give her more things for health care and spread the word across the community. Because they can't come by themselves and they want to keep social distance.

Theme 4: Increased Disease Prevention and Limited Consequences of COVID-19

During the interviews, participants were asked how the health care system in Haiti had changed from the time the first case of COVID-19 occurred in Haiti and what, if any, reproductive health guidelines and/or programs had been implemented in order to prepare for potential natural disasters or epidemics. Interviewees discussed the current COVID-19 impacts, the increased disease prevention measures, the lack of disaster preparedness and the important role social media played in exchanging information.

Seemingly, these initial consequences cost lives, however, Haiti seemed to return to life, as it was before COVID-19 quickly. As Participant I-124 said, "It's starting to get back to normal." "Those kind of support were getting back to normal…as people try to understand how to protect themselves and how to help other." (Participant I-122). Participant I-118 expressed, "There is a little bit of change from the very beginning since it was cases every day but now they do not talk about cases especially in Haiti." Participant I-116 said, "The life in Haiti now is the same as before COVID-19."

A positive result of the pandemic was the increased measures that were put in place to help with disease prevention.

> What they do now is to help the midwife more because of COVID-19 because they don't want to receive a lot of people in the clinic, so they train the midwife more and give her more things for health care and spread the word across the community. Because they can't come by themselves and they want to keep social distance (Participant I-123).

There is a reduction in the amount of people they will allow in the clinic in order to provide social distancing and cleaning measures. Haiti is still observing social distancing measures, as well as the need for masks and hand washing. “Now it is normal for masks and washing hands and getting clean but its start to get back to normal.” (Participant I-124). “Now people wear a mask and some wash their hands – the change is minimal and that’s the only change. It is pretty much the same.” (Participant I-117). Participant I-123 discussed the attitudes of community members, “They might have some change in attitude like washing hands and wearing masks.” Participant I-124 discussed similar changes, “There are some places even until now that have a water tank outside and they would use that as a hand washing place.”

While disease prevention measures increased, allegedly, the necessary systems needed to prepare for another disaster remained the same. A majority of participants said nothing has been put in to place. “Nothing is prepared in case another pandemic comes.” (Participant I-117). “There is nothing. Every hospital is trying to provide their own thing depending on their finances and own resources. Things could go from bad to worse because they don’t have anything in place.” (Participant I-122). “Everyone is still talking about COVID-19 but there is nothing in place in how to prepare if it happens again.” (Participant I-123). “Not a lot is being said. People will probably have to figure out what to do on their own. It is the same now, there is no guideline at all…Nothing has changed or it is probably worse.” (Participant I-124).

Another unexpected consequence of the pandemic was how information was exchanged. Participant I-115 discussed, “A lot of people try to understand and because of

online media/social media we can find a lot of information. If they find it then a lot of people are getting that message." Some of the main social media platform included Facebook, WhatsApp, YouTube and Instagram (Participant I-119). Participant I-119 also mentioned during the interview how community members shared their experience with COVID-19 on social media and encouraged others to take COVID-19 seriously and the recommended precautions.

Theme 5: Decrease in All Health Care Funding Sources

The main types of health care funding came from the government, foreign aid or privately funded. When participants were asked to describe their experience delivering health care services during COVID-19 or asked how the health care system in Haiti changed, many discussed the effects different funding had on several factors including partnerships, access to care, and quality of care.

When COVID-19 hit, the government seemingly closed according to Participant I-116. With the government shut down, many had to get by on their own according to one participant (Participant I-115),

> the only way people, especially during COVID-19, if they have a patient who has COVID-19 goes to the hospital, the family provides everything they need because even at the hospital, the government, they give nothing out. You have to bring your own stuff and security to prevent COVID-19 and to get home safely.

Another participant (Participant I-117), a physician with their own clinic, felt as though they were left with no resources. "The state government wasn't prepared to explain or help the health care organization or say how to do things. They didn't get any

idea on how to help." Another explained, "The biggest barrier first was the presence of the government, they did not show." (Participant I-122).

The political turmoil seemed to compound the issues. Beyond the assassination of the president, an interviewee spoke about the workers that went on strike because of the lack of resources. "Some staff went on strike because they did not have supplies or masks. But there were rumors and political problems." (Participant I-119). Haiti is a country that has relied heavily on foreign aid in the past (Nolte & Boenigk, 2011) and when the country shut down, so did the airport and the influx of foreigners with additional supplies. "Some organizations came in but it was closed for a little bit." (Participant I-116). Participant I-121 said, "No one was coming to Haiti because the airport was shut down, an organization sent money for COVID-19 relief but no one saw that money except maybe the president." Participant I-122 stated, "Financially they are struggling, they only way they are getting finances is if a patient pays for the services. What they received from the government was so low and even some didn't get money from international aid."

Eventually, international organizations did come together and help but it was not just for finances, it was also for supplies. "We have the international organization in the community with lots of people across the world that help with masks and soap and put money together" (Participant I-117). "There would be a little organization across the world to come together to help and send to Haiti" (Participant I-122).

Theme 6: Very Limited Health Care Delivery and Minimal Quality Care

Participants were asked what their biggest barriers to care were and what gaps existed or grew within reproductive health. Many acknowledge the decline in the health care system. The emerging themes included the limited availability of services, the lack of health care providers and the inconsistencies in quality of care.

Those who exhibited COVID-19 symptoms had very little options for diagnosis and treatment. Participant I-116 said, “The biggest barrier was care. Even doctors because they were scared the health care professional was not available.” “A lot of clinics closed because of lack of materials and the physicians were scared so people needed to travel further and find transportation” (Participant I-120). The family had to provide everything while the patient was at the hospital including their own food. Participant I-115 stated,

> the only way people especially during COVID-19, if they have a patient who has COVID-19 goes to the hospital the family provides everything they need because even at the government, they give nothing out. You have to bring your own stuff and security to prevent COVID-19 to get home safely.

Many described a paralyzed health care system during COVID-19 (Participant I-116). “We did not have enough nurses for service,” stated Participant I-119. Participant I-115 confirmed,

> the biggest barrier there are 2 things you need, qualify staff and you need finance during COVID-19 because how can a group of people work if there is no finance. The staff needs to be qualified and the money needs to be there to pay them.

Another issue with health care delivery was the availability of the COVID-19 vaccine. Participant I-116 described the lack of vaccines in Haiti but even if they were available, “the people don’t want to take it. They can’t do any campaign because people will see it and people will not do it” seemingly based on fear. The fear from health care providers was another reoccurring response from participants. “A lot of health care professionals would even stay home because they were scared” (Participant I-117).

> Everybody was completely afraid when this case of COVID-19 came because they didn’t know what would happen so they wouldn’t go to work or go to the hospital. Even if they were well, they were still afraid for some reason (Participant I-120).

A third interviewee (Participant I-122) said,

> when they heard about the first case it was complicated for the health care professional and the patient because the health care professional was afraid to go to work and the patient was afraid to go to the hospital. It was very complicated. In addition, even those physicians who wanted to help “didn’t get the resources” they needed to do so (Participant I-120).

Theme 7: Negative Impact of Fear

When participants were asked to discuss their experience after COVID-19, the topic of fear and its impact was mentioned frequently. Fear from both the community and the providers played a big role in how health care was delivered and barriers to care were addressed.

Some participants discussed that the community did not completely abandon those in need. “It happened but it decreased. The relationship was not the same...everyone was afraid” (Participant I-116). “The community wanted to engage but everyone was afraid and so this type of helped slowed down. They did not want to help and get the virus. Some people were neglected” (Participant I-122). As previously discussed, some fear even lead community members to anger and violence.

> When COVID-19 hit and during COVID-19, somewhere, most of the community when they understand when someone is coughing and having fever, instead of helping they will run away, in some places they wanted to kill that person because they know they will infect everyone. It was a poison for everyone (Participant I-117).

Fear also affected how people sought out health care services. “Overseas, things like hospitals were overcrowded but in Haiti if someone thought they had it, they were no going into the hospital” (Participant I-121).

Evidence of Trustworthiness

As discussed in chapter three, ensuring validity allows for a researcher to be objective in their analysis, however it can include different ideas like rigor, trustworthiness, and appropriateness (Hayashi Jr et al., 2019). While it can be difficult to reach validity, credibility, and reliability in qualitative research, experts agree on the need to assure them in a study (Konradsen et al.,, 2013. The following section reviews how each component was upheld through the data collection and analysis of this study.

Credibility

The internal validity of this study was reached through perspective triangulation. While focus groups were no longer a viable option for this study, this study documented the perspective of multiple participants (health care professionals) and their views of the reproductive health care system during COVID-19 in Haiti.

Transferability

While there were many external and ever-changing factors that could have played a role in external validity, I maintained my original techniques of thick descriptions and variation of participation selection. Transparency and detailed descriptions of the context of this study were provided in order to achieve justifiable findings to help with future research.

Dependability

Dependability was achieved in this study through data source triangulation through the inclusion of different health care professional familiar with the reproductive health care system in Haiti including midwives, physicians, and nurses. These professionals worked at different facilities including nonprofits, government funded and private facilities. Some owned their own clinic while others had an employer. The consistency and reliability of research findings previously presented. While originally a translator was going to be utilized to help conduct the interviews, the interviews were changed and were conducted in English, allowing me to be the first point of contact for all data collection. Procedures applied in this study were well documented and described.

Confirmability

Objectivity, or confirmability, was achieved in this study through well-documented data collection and I continued self-awareness of my relationship to the study. The interview responses were documented verbatim and transcribed both orally (through voice recording) and physically (through note taking). Coding took place through multiple steps in order to achieve accurate findings. Additionally, confirmabilty was achieved through reflexivity by acknowledging my role as the researchers and by examining my thoughts on the responses throughout the interview process

Summary

This chapter described the details of the pilot study conducted in this research and the circumstances that required the original study be adjusted. Each of the ten interviewees participated in an open-ended, 20-question survey where they described their experience with the reproductive health care system in Haiti before and after the first case of COVID-19 was discovered. Their responses were recorded verbatim, coded and compared for similarities and differences pre- and post-COVID-19.

Five major themes developed from pre-COVID-19/post-COVID-19 similarities: a) partnerships directly impact health outcomes; b) impact of disparities and the need for equity; c) poor infrastructure and educational impact; d) lack of reproductive health care; and e) limited health care delivery. From the pre-COVID-19/post-COVID-19 differences, seven themes appeared including a) decrease in social support in all regions; b) decrease of community support; c) lack of reproductive health care and increased home births; d) increased disease prevention and limited consequences of COVID-19; e) decrease in all

health care funding sources; f) very limited health care delivery and minimal quality care; and g) negative impact of fear.

Reoccurring categories emerged throughout the participant responses including; health care disparities among different regions, inequity of resources, inequality of social support including transportation and financial means, poor health care delivery, lack of quality care, and the limited reproductive rights for women. Participants also discussed the consequences of COVID-19, decrease in community support, fear, social media as a source for spreading information, and the increase of homebirths.

Throughout all interviews, midwives were recognized as a constant source of care and trust in most communities before and during COVID-19. Handwashing and social distancing have remained a priority for most people and organizations since the being of the pandemic. While the number of COVID-19 cases in Haiti were not as high as other nations, the pandemic drastically effected the nation as a whole.

In the following chapter, an interpretation of the findings of this study will be presented and how they confirmed or negated the theoretical frameworks they were based in. It will also describe the limitations of this study and the recommendations and implications for future research. Chapter 5 will also discuss the social implications of this study and potential social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine how COVID-19 affected the reproductive health care system in Haiti. I hoped to reveal lessons learned to increase knowledge and understanding of the reproductive health care system in Haiti to prepare for the next potential disaster or epidemic. To address the gap in the literature, I conducted a qualitative case study, through one-on-one interviews, with 10 health care professionals familiar with the reproductive health care system in Haiti. This study was based in the community resilience theory and the reproductive justice theory.

Five major themes emerged regarding pre-COVID-19/post-COVID-19 similarities: (a) partnerships directly impact health outcomes, (b) impact of disparities and the need for equity, (c) poor infrastructure and educational impact, (d) lack of reproductive health care, and (e) limited health care delivery. Regarding differences, seven themes emerged: (a) decrease in social support in all regions, (b) decrease of community support, (c) lack of reproductive health care and increased home births, (d) increased disease prevention and limited consequences of COVID-19, (e) decrease in all health care funding sources, (f) very limited health care delivery and minimal quality care, and (g) negative impact of fear. This chapter includes a review of the 12 themes that materialized from the data analysis in the context of the two theoretical frameworks and the literature review presented in Chapter 2. Additionally, I explain the limitations of the study, provide recommendations for future research, and describe any implications for social change this research might present.

Interpretations of the Findings

Chapter 2 provided a review of the literature addressing reproductive health, the status of women and children in Haiti and their vulnerability especially after a natural disaster, as well as the environment of Haiti and the effects natural disasters have had in creating an unstable society. Chapter 2 also covered the frameworks that this study was based on including the community resilience theory and the reproductive justice theory. The following discussion is a comparison of the literature review to the data presented in this study and an analysis in the context of the two frameworks.

Pre-COVID-19 / Post-COVID-19 Similarities

Theme 1: Partnerships Directly Impact Health Outcomes

Haiti has faced many challenges (Stoyan et al., 2016), and the research showed partnerships have been a vital part of recovery (Nolte & Boenigk, 2011). Participants also noted the significance of the partnership between midwives, doctors, and the community. Participant I-123 confirmed

> if you get a pregnant woman, six others could come with her. Two could be family and the rest are the community to help. If a patient needs money for treatment, they will ask people in the community for help. There are a lot of people who care for pregnant women.

Beyond community partners, foreign assistance has had a large influence on the economy of Haiti. Almost $6 billion has been donated to Haiti since the 2010 earthquake with hopes for relief and rebuilding (Ramachandran & Walz, 2015). Participant I-118 confirmed the role foreign aid has played by stating “this community is a well-served

area. There is a lot of foreign help." Also, Participant I-117 discussed the role foreign assistance has played on reproductive health care: "Somewhere an international organization has a program helping especially woman has malnutrition or a complicated birth."

Literature aligned with participant data especially with the data collected on the importance of midwives on reproductive health. Participant I-116 and Participant I-121 agreed that 70% of women give birth at home. "Traditional birth attendant, by definition like a midwife, by definition like a strong woman and they help the young woman to make birth, more than 70% have birth at home not at the hospital" (Participant I-116). Although research predicted the number of home births is closer to 60% (Dev et al., 2019) and 85% in rural communities (Priest et al., 2018), the literature confirmed the importance of midwives to healthy birth outcomes and the role they play in filling in the gaps in Haiti's health care (Huber, 2015). Overall, the literature review and participant responses coincided regarding the impact partnerships have on the landscape and health of Haiti.

Theme 2: Impact of Disparities and the Need for Equity

Participant interviews revealed health care disparities and the role they have played in health care in Haiti. Participants addressed poor health care in Haiti due to lack of medicine or facilities (Participant I-117). Additionally, the people of Haiti simply cannot pay for their own health care (Participant I-116). Recent research agreed that multiple factors have led to health disparities including poverty, lack of resources, an

unstable government, and the constant threat of a natural disaster (Louis & Moloney, 2018).

Participants noted that the availability of medical providers with adequate education and resources needed to give quality care remains low (Participant I-118). Doctors are overworked and exhausted by the end of the day (Participant I-123). Literature confirmed physician shortages have continued to increase since 2010 (Nádas et al., 2015). To improve disparities, Haiti will need to implement a multifaceted approach including solutions to the lack of a quality workforce in the medical field (Nádas et al., 2015).

Theme 3: Poor Infrastructure and Educational Impact

Participants discussed that poor infrastructure and lack of education impacted the health in Haiti causing distrust. Participant I-121 explained the quality of care is poor and doctors and nurses have no incentive to make a positive change. Once COVID-19 hit, health care professionals had even less of a reason to put in more effort to serve the community (Participant I-116). Government seems to have little involvement in helping (Participant I-115) especially during COVID-19 (Participant I-122).

Literature showed there is a direct correlation between the quality of the health care infrastructure and birth outcomes (Gage et al., 2019). Even though expanding reproductive health care has remained a priority over the years, Haitians continue to have a distrust in the system (Gage et al., 2018). Haiti must address its poor infrastructure, including physician education, to gain trust among the community and produce healthier outcomes (Nádas et al., 2015).

Theme 4: Lack of Reproductive Health Care

Participant data showed a lack of reproductive health care and reproductive rights in Haiti limiting choices for peri- and postnatal women. As True (2016) explained, after a disaster women are exposed to many consequences including lack of access to health care and gender violence. If no disaster preparedness plan exists to address these issues, their vulnerability will continue to increase. Confirmed through participant responses, the health care system in Haiti is weak or nonexistent with no systems in place to protect women (Participant I-121). This has led to an extremely high infant mortality rate even though pregnancy-related deaths are one of the most preventable causes of deaths among females (Gao & Kelley, 2019). More women give birth at home with little support from their partner (Participant I-121) and with the help of a traditional birth attendant or midwife (Participant I-122). Family planning options are limited and sometimes discouraged by partners (Participant I-122), making it difficult for women to be their own advocate.

A study conducted by United Nations Population Fund (2018) found almost 70% of health care facilities lacked several lifesaving maternal health drugs and recommended the need for more comprehensive reproductive health interventions. The research confirmed the need for better reproductive rights and the harm that is caused by insufficient reproductive health care. The lack of adequate reproductive health care and reproductive rights can lead to unintended pregnancies, unsafe abortions, maternal morbidity, and maternal mortality especially when threatened by a natural disaster or epidemic (Schaaf et al., 2020).

Theme 5: Limited Health Care Delivery

Participants confirmed COVID-19 compounded the existing issue of limited health care delivery options. Many health care facilities had to close (Participant I-116; Participant I-120). Fear was rampant even among health care professionals (Participant I-119; Participant I-122). With the closing of clinics during COVID-19, home births increased, as did the need for midwives (Participant I-116). Even clinics with a stable funding source provided limited care due to the large demand during COVID-19 (Participant I-115). This led to poorer quality of care (Participant I-123). As seen from the interview responses and the literature review, many factors played a role in limited delivery of health care in Haiti and were compounded by COVID-19.

Although research has shown that the driving force behind recovery of past disasters has been the increase in the access to care mainly sourced through international aid (Kligerman et al., 2015), COVID-19 presented several difficulties. Humanitarian aid and resources decreased, slowing down recovery and limiting care further. Although there is a gap in the literature on the role fear played in limiting access to care, it can be said that because Haiti had relied on international aid so heavily in the past when it was unavailable, access to health care services diminished significantly (Díaz-Bonilla et al., 2021). Disaster preparedness policies will need to address this moving forward.

Throughout all five themes, common threads emerged that highlighted the need for health care system changes in Haiti. Although the discussion about the lack of availability and poor quality of care remained constant among all participants, they also

discussed some of the positives that have come out of the unstable environment including the development and utilization of midwives and the bond between community members.

Pre-COVID-19 / Post- COVID-19 Differences

Theme 1: Decrease in Social Support in All Regions

When comparing social support before and after COVID-19, participants discussed the decrease in social support after the first COVID-19 case due to fear with an increase in support from midwives. Before COVID-19, the community helped women obtain reproductive services and social support, but when the pandemic began, many community members stopped helping due to fear (Participant I-115). Fear gained so much momentum that some community members became violent toward those infected (Participant I-122). Education played a large role in helping the community begin to return to pre-COVID-19 behaviors (Participant I-122; Participant I-123). Literature confirmed fear of infection as a reason for a decrease in community support (Lasante, 2021). Fear and the lack of access to appropriate education perpetuated the stigmas related to COVID-19 (Cénat et al., 2021), showing the importance of implementation of programs with a positive and non-fear-based message during epidemics (Cénat, 2020).

Although community support decreased, the use of midwives increased during COVID-19 in Haiti (Participant I-119). “What they do now is to help the midwife more because of COVID-19 because they don’t want to receive a lot of people in the clinic, so they train the midwife more” (Participant I-123). Data showed community health workers such as midwives are a crucial part of delivering reproductive health services within the community because they understand the local culture and provide a strong connection to

care (Lasante, 2021). COVID-19 is not the first time midwives have been used to help deliver care after a natural disaster (O'Malley Floyd, 2013). They remain a vital part of the health care delivery system in Haiti and fill in the gaps when social support is lacking. Research suggested the appropriate steps moving forward include alleviating challenges for midwives and providing stronger support for these positions (Lasante, 2021).

Theme 2: Decrease of Community Support

Participants confirmed the important role community support has played in helping peri- and postnatal women receive the care they need and the negative effects COVID-19 had on it. COVID-19 caused most of that support to pause for a time. Community members had a desire to help but feared the repercussions of the disease (Participant I-116).

Research echoed the desire of the community to help even if not enough to prevent maternal mortality (MacDonald et al., 2018). Fear of infection played a role in the decrease in support highlighting how unprepared Haiti was to serve peri- and postnatal women (Cénat, 2020). MacDonald et al. (2018) recommended that the community perspective is crucial to understanding and implementing the appropriate protocols that will lead to a reduction in maternal mortality.

Theme 3: Lack of Reproductive Health Care and Increased Home Births

Participant responses showed a correlation in the lack of reproductive health care, an increase in home births, and COVID-19. Participant I-121 explained "Haiti doesn't have systems like that (to protect the woman) government doesn't function well, they don't like the government or trust them so they can't set up systems to help women.

Women are not really valued in Haiti." Participant I-121 also confirmed the research that women have very little power when it comes to making decisions for their own health including family planning options (Fordyce, 2009).

Research beyond this study also revealed the vulnerability of women in Haiti especially in poor areas and the correlation it can have with poor birth outcomes (Dev et al., 2022). Lack of trust in the government and women's limited ability to be their own advocate could be causes for a poor reproductive health care system in Haiti. Women will not access the little amount of services they need because they do not trust those who provide them. These issues must be addressed to create meaningful change in the reproductive health care system.

Theme 4: Increased Disease Prevention and Limited Consequences of COVID-19

Participant responses showed minimal prevention measures have been put in place to help with disease prevention after COVID-19 in Haiti. The community is more accepting of hand washing and mask utilization (Participant I-124), and social distancing has been seen as advantageous in helping prevent illness (Participant I-123). Although these measures are positive steps toward an improved health care system, they are marginal. Participants also confirmed no new systems have been put in place in case of another natural disaster or pandemic (Participant I-117; Participant I-123).

The literature revealed the consequences of natural disasters on vulnerable populations with women who are pregnant being ones who deal with the most unintended consequences (Behrman & Weitzman, 2016). As things return to normal (Participant I-117), there is still time to put appropriate measures in place (Benjamin et al., 2011). A

comprehensive plan for development and sustainability with a focus on social, environmental, and psychological factors is necessary to make lasting change toward disaster preparedness (Weisz & Taubman, 2017).

Theme 5: Decrease in All Health Care Funding Sources

Participants described the decrease in funding across all sources including government, private aid, and foreign aid. Past experience showed that when Haiti experiences a disaster or epidemic, aid increases; however, because COVID-19 was so widespread throughout the world, Haiti was left to deal with issues on their own (Rouzier et al., 2020). The Haitian government was not prepared to respond (Participant I-117; Participant I-122) because it was also dealing with political turmoil and eventually the assassination of the Haitian president (Dupain et al., 2021). The government's inability to fill in the gaps is well documented. "Our governments never cared about the national inheritance and never attempted to stop social grievances. They talked a lot about liberty, only to fool the free world instead of using it fairly as a domestic policy" (Ramachandran & Walz, 2015, p.2).

As Haiti has relied heavily on foreign aid in the past (Nolte & Boenigk, 2011), the people suffered when airports closed and foreign money, supplies, and physical labor stopped (Participant I-121). Eventually, international aid returned but COVID-19 revealed the crippling consequences of relying on aid from one source. While foreign aid has been important to disaster recovery, long-term, foreign aid has weakened the system by creating an unstable environment (Ramachandran, & Walz, 2015) and needs to be

addressed in any programs, both foreign and domestic, that desire a sustainable system in Haiti.

Theme 6: Very Limited Health Care Delivery and Minimal Quality Care

Interviews revealed that participants were in agreement that COVID-19 negatively affected health care delivery in Haiti and the quality of care. It is well documented the issues with health care delivery in Haiti and the lack of quality care available (Wang et al.,, 2017). COVID-19 compounded the issues in a variety of ways. Several clinics closed due to lack of resources, lack of motivation, and fear (Participants I-120). Additionally, the availability of COVID-19 vaccines was restricted leaving those diagnosed with COVID-19 few options for recovery.

Participant I-116 explained that even if vaccines were available, most people in the community wouldn't take it, reiterating the lack of trust the Haitian people have in their own government and health care system. The literature confirmed the lack of available vaccines (Schuklenk, 2021) and the lack of trust from community members with lack of trust ranging from the lack of trust of the government, the pharmaceutical industry and the effectiveness of the vaccines itself (Wang et al.,2022). Issues of trust play a role in implementing public health policy and must be addressed within disaster management programs.

Theme 7: Negative Impact of Fear

Participants said the cause for fear during COVID-19 can be explained through a number of long-term and short-term factors. Some of the short-term causes mentioned among interviewees include the lack of education around COVID-19 and how it spreads

(Participant I-122). Patients would not go to the hospital to seek out treatment (Participant I-121). The spread of wrong information caused a stigma around people with COVID-19 (Rouzier, 2020).

Research examined the long-term causes for fear of government and of the health care system, we would be remiss to not examine the role racism and neglectfulness has played. The literature revealed a history of the stigmatism Haitians held by their neighboring country (Dominican Republic) as an uncivilized people group (Keys et al., 2015). It was not until 2005 that a child born from Haitian immigrants was even recognized as a Dominican citizen (Rogers-Brown et al., 2015). Additionally, Haiti has experienced negative consequences from French colonialism and U.S. occupation as seen in the Cholera epidemic after the 2010 earthquake (Fraulin & Bartels, 2021). While building back trust with the Haitian people will not be easy due to several past experiences, and like other suggested interventions, they must be reconciled in order to create appropriate public health interventions.

Theoretical Framework

The theoretical framework for this study was founded in two theories: community resilience theory and reproductive justice theory.

Community resilience theory states a community is most resilient when they reduce risk and decrease resource inequality by engaging local people, creating partnerships, and encouraging social support through flexibility, decision-making skills, and trusted information after a natural disaster (Norris et al., 2008) This theory links resilience to adaptive capacities in adversity and states that resilience is a process not an

outcome (Norris et al., 2008). The data collected in this study confirms the need for support from local people and partnerships in order to reduce risk and create a functioning health care system. The lack of community support and trusted information (Participant I-117) caused limited accessibility to the appropriate health care resources needed for peri and postnatal women.

Reproductive justice theory advocates for reproductive rights through a broader social justice moment including through human rights, peace, educational equality, poverty, and health-care disparities (Chrisler, 2014). Based on participant responses, it was clear the reproductive health care system in Haiti is at best, a flawed and weak system (Participant I-121). Research confirms reproductive health care services suffer some of the greatest inequities across all other services (Sohrabizadeh et al., 2018).Haiti is no exception. Without the appropriate systems in place, the reproductive health care system in Haiti will continue to struggle with lack of human rights, inequity, poverty, and health care disparities.

Limitations of the Study

The original study design included data collected from two different data sources, reproductive health care professionals and peri/postnatal women. After the country shutdown due to COVID-19, I was unable to travel making it implausable to conduct focus groups with peri/postnatal women from the community, so the data collection came from a single source, health care professionals. Initially, the translator, who assisted in translating the recruitment email, the consent form, and the screening questions for the study, agreed to help with the interpretation of the interviews. When the participant

selection and data collection changed, I decided to conduct interviews in English, therefore, when health care professionals were screened for selection, I asked if they spoke English.

Participants were sent the interview questions in both English and Creole before the interview so they could be prepared for what was going to be asked of them. It also helped to build rapport with participants so they could further understand the intent of the study.. While the translator did not interpret the interviews, they remained a resource for the duration of the study if a cultural or language issue came about. If a question did not make sense, the translator (a natural born Haitian citizen) was able to provide me some insight that I was able to share with my participant.

Participants were reminded at the beginning of interviews that the study was about their experience on COVID-19 and the reproductive health care system. The definition for reproductive health care was given based on the term defined in chapter two of this study. About 20 percent of participants hesitated on question two of the interview that asked about the quality of care in Haiti. Participants seemed hesitant to share some of their responses for fear of speaking poorly of the Haitian people. Participants were made fully aware before the interview and reassured during the interview that they did not have any obligation to answer any of the questions during the interview. They were also reminded the confidentially of the data, the way in which the data would be stored and who had access to the data. It was explained the benefit collecting this data and the implications if could have for their community. At the end of the study, participants were given the opportunity to correct anything that was said during

the study and given permission to contact me at any point during the data analysis phase of this study. They were also told they could receive a copy of the final study if requested.

Recommendations

The shortage of health care workers and quality of care continues to be identified as a barriers to achieving optimal health and lower maternal and infant mortality in Haiti (Floyd & Brunk, 2016). More research is needed on the utilization of midwives and their role in disaster prevention/relief policy and programs. In addition, more documentation is needed on the current training of midwives and the source of funding and training. Other research suggests the same (O'Malley Floyd, 2013). As Wang et al. (2017) suggests, it is mostly needed in rural communities and should have more research being conducted in those communities.

Previous research has also suggested benefit in using social apps, mainly WhatsApp, to "assess the damage, share information with other organizations, and engender a timely, cooperative, organized, and appropriate relief effort." (Rouhani et al., 2019). Future research should explore theutilizing of such tools could to increase education and improve health care delivery especially after a disaster.

Implications

Women tend to experience a disproportionate amount of consequences after a natural disaster. (Jafari et al., 2020). Due to the specific needs of perinatal women, when a pandemic or natural disaster occurs, they become some of the most vulnerable compared with other displaced people. This may account for Haiti's high rate of maternal

and infant mortality even with pregnancy-related deaths being one of the most preventable causes of deaths for women (Gao & Kelley, 2019). While disaster response efforts have developed over the course of the last decade, this study brings to light the fact that peri and postnatal women still remain some of the most negatively affected among displaced people.

Through the literature review and the data collected in this study, the need for a better reproductive health care system is apparent. Reproductive justice, specifically in Haiti, continues to be nonsexist or at the most, a very weak concept as seen from the participant responses. Disaster interventions need to include both education and training on how to empower women when they are most vulnerable, after a disaster.

This study highlights the importance of midwives in the community and the need to provide more funding and training for them as they are the most connected to the women in the community after a disaster. It also shows how influencial social media can be whether positively or negatively. Disaster interventions should utilize this tool in order to educate and inform the community after a disaster.

This study adds to the discussion of the effects of COVID-19 on the reproductive health care system and the need for policy implementation to improve it. A solution cannot be complete without government participation, community engagement and education, and foreign organizations and a clarification of their role in this process. There must be a further push for more access to quality health care with clear solutions on how to improve on the limitations of Haiti.

Conclusion

Haiti continues to deal with a large number of hardships including natural disasters, political instability, epidemics, poverty, high maternal and infant mortality, and poor health care delivery (Zubieta et al., 2020). Research shows stressors like natural disasters affects women the most and the violence inflicted on them which can in turn affects the way they access health care (Jafari et al., 2020). The consequences perpetuated on the women in Haiti have led to adverse birth outcomes and continue to this day (Dev et al., 2022).

Compounding the already existing issues in Haiti, this study confirms, COVID-19 increased the barriers to care for pre, peri, and postnatal women trying to access reproductive health care services. System changes can only occur after an acknowledgment of these issues have been made by the stakeholder supporting the health care system in Haiti including the government, foreign organizations, and community members. Furthermore, without appropriate systems and policies in place, Haiti's health care delivery system will not be prepared to meet the needs of their most vulnerable populations.

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Appendix A: Indirect Recruitment Email for Community Members

Subject Line: Participants being sought for a research study on COVID-19 in Haiti

A doctorate student at Walden University, Abbi Lee, in the United States, is looking for participants for a research study. You are receiving this email because you are a woman, between the ages of 18-59 and who is currently or recently pregnant and received antenatal, labor and delivery, or postnatal care immediately before and after the first case of COVID-19 was discovered in Haiti.

The purpose of this study is to increase the knowledge of the lessons learned from the COVID-19 Pandemic in Haiti, identify any changes that have been applied to the reproductive and child health care system, and make recommendations for continued improvement that will help to prepare the community and health system for the next disaster or epidemic. If you take part in this study, you would be agreeing to signing a consent form (withdrawal from the study is allowed at any time) and a one-on-one virtual interview for about one (1) hour. (The interview will be recorded for data accuracy. Data will later be translated into English).

If you are interested in participating or have any questions about the study, please contact Abbi Lee via mobile 001-918-232-1204 and/or abbi.lee@waldenu.edu or direct message her on Facebook at facebook.com/abbi.villio.

Thank you for your time

Appendix B: Indirect Recruitment Email for Community Members (Haitian Creole)

Appendix B: Imèl rekritman endirèk pou manm Kominote a

Liy sijè: Yap chache patisipan pou yon etid rechèch sou COVID-19 nan Ayiti

Yon etidyan nan doktora nan Inivèsite Walden, Abbi Lee, Ozetazini, ap chèche patisipan pou yon etid rechèch. Ou resevwa imèl sa a paske ou se yon fanm, ki gen laj ant 18-59 ane e ki aktyèlman oswa dènyèman ansent e ki te resevwa swen prenatal, swen pandan tranche ak akouchman, osinon kite resevwa swen apre akouchman imedyatman anvan oswa apre premye ka COVID-19 la te dekouvri nan Ayiti.

Objektif etid sa a se pou ogmante konesans sou leson yo te aprann de pandemi COVID-19 la nan Ayiti, idantifye nenpòt chanjman ki te aplike nan sistèm sante repwodiktif la ak sante timoun, epi fè rekòmandasyon pou amelyorasyon kontinyèl kap ede prepare kominote a ak sistèm sante a pou pwochen dezas oswa epidemi. Si ou patisipe nan etid sa a, ou ta dakò siyen yon fòm konsantman (Ou ka soti nan etid la nenpòt ki lè) ak yon entèvyou vityèl tèt a tèt pou apeprè yon sèl (1) èdtan. (Entèvyou a ap anrejistre pou presizyon done yo. Done yo ap gen pou tradwi nan lang Anglè apre).

Si ou enterese patisipe oswa ou gen nenpòt kesyon sou etid la, tanpri kontakte Abbi Lee nan telefòn mobil 001-918-232-1204 ak / oswa abbi.lee@waldenu.edu oswa ekri li dirèk li sou Facebook nan facebook.com/abbi.villio.

Mèsi pou tan ou.

Appendix C: Indirect Recruitment Email for Health Care Professionals

Subject Line: Health care Professionals being sought for a research study on COVID-19 in Haiti

A doctorate student at Walden University, Abbi Lee, in the United States, is looking for health care professionals to participate in a research study. You are receiving this email because you are a health care professional that is working in the reproductive and child health medical field and assisted patients before and during, the first case of COVID-19 was discovered in Haiti.

The purpose of this study is to increase the knowledge of the lessons learned from the COVID-19 Pandemic in Haiti, identify any changes that have been applied to the reproductive and child health care system, and make recommendations for continued improvement that will help to prepare the community and health system for the next disaster or epidemic. If you take part in this study, you would be agreeing to signing a consent form (withdrawal from the study is allowed at any time) and a one-on-one virtual interview for about one (1) hour. (The interview will be recorded for data accuracy. Data will later be translated into English).

If you are interested in participating or have any questions about the study, please contact Abbi Lee via mobile 001-918-232-1204 and/or abbi.lee@waldenu.edu or direct message her on Facebook at facebook.com/abbi.villio.

Thank you for your time.

Appendix D: Indirect Recruitment Email for Health Care Professionals (Haitian Creole)

Appendix D: Imèl rekritman endirèk pou pwofesyonèl lasante

Liy sijè: Yap chache pwofesyonèl lasante pou yon etid rechèch sou COVID-19 nan Ayiti

Yon etidyan nan doktora nan Inivèsite Walden, Abbi Lee, Ozetazini, ap chèche pwofesyonèl lasante pou patisipe nan yon etid rechèch. Ou resevwa imèl sa a paske ou se yon pwofesyonèl lasante ki ap travay nan swen sante repwodiktif ak sante timoun nan domèn medikal e ki te ede pasyan anvan oswa pandan, premye ka COVID-19 la te dekouvri nan Ayiti.

Objektif etid sa a se pou ogmante konesans sou leson yo te aprann de pandemi COVID-19 la nan Ayiti, idantifye nenpòt chanjman ki te aplike nan sistèm sante repwodiktif la ak sante timoun, epi fè rekòmandasyon pou amelyorasyon kontinyèl kap ede prepare kominote a ak sistèm sante a pou pwochen dezas oswa epidemi. Si ou patisipe nan etid sa a, ou ta dakò siyen yon fòm konsantman (Ou ka soti nan etid la nenpòt ki lè) ak yon entèvyou vityèl tèt a tèt pou apeprè yon sèl (1) èdtan. (Entèvyou a ap anrejistre pou presizyon done yo. Done yo ap gen pou tradwi nan lang Anglè apre).

Si ou enterese patisipe oswa ou gen nenpòt kesyon sou etid la, tanpri kontakte Abbi Lee nan telefòn mobil 001-918-232-1204 ak / oswa abbi.lee@waldenu.edu oswa ekri li dirèk li sou Facebook nan facebook.com/ abbi.villio.

Mèsi pou tan ou.

Appendix E: Community Member Screening Questionnaire

Title: **The Effects of Natural Disasters on Reproductive and Child Health**

1. Full Name: _____
2. How many years have you been alive? _____
3. Were you pregnant during April 2020 to June 2020?
4. Are you pregnant?
5. Did you receive reproductive health services (including antenatal, labor and delivery, or postnatal care) *before* the COVID-19 pandemic in Haiti? ____Yes ____No
6. Were you/are you pregnant and obtained reproductive health services (including antenatal, labor and delivery, or postnatal care) before the COVID-19 pandemic in Haiti? ____Yes ____No
7. Did you receive reproductive health services (including antenatal, labor and delivery, or postnatal care) *during* the COVID-19 pandemic in Haiti? ____Yes ____No
8.
9. Were you/are you pregnant and obtained reproductive health services (including antenatal, labor and delivery, or postnatal care) during the COVID-19 pandemic in Haiti? ____Yes ____No
10. Are you interested in participating in this research project? ____Yes ____No
11. Please identify the best way to contact you:

Mobile Phone: _____

Email: _____

Please note that confidentially is guaranteed. If chosen, you have the right to leave the study at any time. There will be a small compensation for participating fully in this study. You will be contacted shortly about the time and location of the discussion. You can also contact me by phone at any time – 001-XXX-XXX-1204 or email abbi.lee@waldenu.edu.

Thank you for your support on my behalf.

Abbi Lee
Walden University

Appendix F: Community Member Screening Questionnaire (Haitian Creole)

Appendix J: Kesyonè Depistaj Manm Kominote a

Tit: **Efè dezas natirèl yo sou swen sante repwodiktif ak sante timoun**

1. Non konplè: _____
2. Depi konbyen ane ou vivan? _____
3. Èske ou te ansent pandan avril 2020 a jen 2020?
4. Eske ou ansent?
5. Èske ou te resevwa sèvis sante repwodiktif (ki gen ladan l swen prenatal,swen pandan tranche ak akouchman, oswa swen apre akouchman) anvan pandemi COVID-19 nan Ayiti? ____Wi …Non
6. Eske ou te oswa eske ou ansent e resevwa sèvis sante repwodiktif (ki gen ladan l swen prenatal,swen pandan tranche ak akouchman, oswa swen apre akouchman) anvan pandemi COVID-19 nan Ayiti? ____Wi …Non
7. Èske ou te resevwa sèvis sante repwodiktif (ki gen ladan l swen prenatal,swen pandan tranche ak akouchman, oswa swen apre akouchman) pandan pandemi COVID-19 nan Ayiti? ____Wi …Non
8. Eske ou te oswa eske ou ansent e resevwa sèvis sante repwodiktif (ki gen ladan l swen prenatal,swen pandan tranche ak akouchman, oswa swen apre akouchman) pandan pandemi COVID-19 nan Ayiti? ____Wi …Non
9. Èske ou enterese patisipe nan pwojè rechèch sa a? ____Wi ……Non
10. Tanpri idantifye pi bon fason pou kontakte ou:

Telefòn mobil: _____

Imèl: _____

Tanpri, sonje ke konfidansyalite garanti. Si w chwazi, ou gen dwa kite etid la nenpòt ki lè. Lap gen yon ti konpansasyon pou patisipe konplètman nan etid sa a. Yap kontakte ou nan yon ti tan sou ki lè ak kote diskisyon ap fèt. Ou kapab kontakte m tou pa telefòn nan nenpòt ki lè - 001-XXX-XXX-1204 oswa imèl abbi.lee@waldenu.edu.

Mèsi pou sipò ou nan non mwen

Abbi Lee
Inivèsite Walden

Appendix G: Health Care Professional Screening Questionnaire

Title: **The Effects of Natural Disasters on Maternal and Child Health**

1. Full Name: _____

2. Did you provide reproductive and child health services (including antenatal, labor and delivery, or postnatal care) in Haiti *before and during* the COVID-19 pandemic in Haiti? ____Yes ____No

3. If yes, where (please include town)?
   _____

4. What is your job title?
_____

5. Are you interested in participating in this research project? ____Yes ____No

6. Do you speak Englis? ____Yes____No

Please identify the best way to contact you:

Mobile Phone: _____

Email: _____

Please note that confidentially is guaranteed. If chosen, you have the right to leave the study at any time. There will be a small compensation for participating fully in this study. You will be contacted shortly about the time and location of the discussion. You can also contact me by phone at any time – 001-XXX-XXX-1204 or email abbi.lee@waldenu.edu.

Thank you for your support on my behalf.

Abbi Lee
Walden University

Appendix H: Health Care Professional Screening Questionnaire (Haitian Creole)

Appendix L: Kesyonè depistaj pwofesyonèl lasante

Tit: **Efè dezas natirèl yo sou sante matènèl ak sante timoun**

1. Non konplè: _____

2. Eske ou te bay sèvis nan swen repwodiktif ak sèvis sante timoun (ki gen ladan l swen prenatal, swen pandan tranche ak akouchman, oswa swen apre akouchman) nan Ayiti anvan ak pandan pandemi COVID-19 la nan Ayiti? ____Wi____Non

3. Si wi, ki kote (tanpri mete vil la)?
_____

4. Ki tit travay ou?
_____

5. Èske ou enterese patisipe nan pwojè rechèch sa a? ____Wi ____Non

6. Eske ou pale angle?_____Wi_____Non

Tanpri idantifye pi bon fason pou kontakte ou:

Telefòn mobil: _____

Imèl: _____

Tanpri, sonje ke konfidansyalite garanti. Si w chwazi, ou gen dwa kite etid la nenpòt ki lè. Lap gen yon ti konpansasyon pou patisipe konplètman nan etid sa a. Yap kontakte ou nan yon ti tan sou ki lè ak kote diskisyon ap fèt. Ou kapab kontakte m tou pa telefòn nan nenpòt ki lè - 001-XXX-XXX-1204 oswa imèl abbi.lee@waldenu.edu.

Mèsi pou sipò ou nan non mwen

Abbi Lee
Inivèsite Walden

Appendix I: Individual Interview Protocol for Health Care Professionals

Date: _____

Place: _____

Interviewer: Abbi Lee

Interviewee: _____

Consent form signed? _____

Note to the interviewee

Thank you for participating in this study. Your feedback will provide value information to the research. You are guaranteed confidentially. The approximate length of this study is one hour.

Framework of the Project

Community Resilience (Resilience is defined as a community's capacity, skills, and knowledge that allows it to deal successfully and participate fully in their own recovery from disasters (Coles, 2004). Community resilience theory states a community is most resilient when they reduce risk and decrease resource inequality by engaging local people, creating partnerships, and encouraging social support through flexibility, decision-making skills, and trusted information after a natural disaster) and Reproductive Justice (advocates for reproductive rights through a broader social justice movement including through human rights, peace, educational equality, poverty, and health-care disparities).

Research Questions

RQ1-Qualitative: What are the experiences of the reproductive and child health care professionals (providing antenatal, labor and delivery, or postnatal care) who worked with women before and after the first case of COVID-19 in Haiti was discovered?

RQ2- Qualitative: Since the first case of COVID-19 was discovered in Haiti, what changes, if any, have occurred to the reproductive health care system in Haiti?

Time Interview Began: _____

Interview Questions

Before COVID-19 in Haiti

1. How was the reproductive health care system structured before the first case of COVID-19 was discovered in Haiti?
    a. What is your perception of the level of the quality of the reproductive health care provided before the COVID-19 pandemic?
2. Describe how local people were engaged before COVID-19 to assist women in obtaining reproductive health care.
3. Describe how local communities were engaged before COVID-19 in assisting with social support.
4. How did engaging communities enhance the flexibility of obtaining social support services before COVID-19?
5. How did engaging local communities reduce the risks associated with obtaining support services before COVID-19?
6. Describe how local communities were engaged in providing health equity for women through social support resources before COVID-19?
7. Describe how local communities were engaged before COVID-19 in assisting with community partnerships.

During COVID-19 pandemic began

8. What is your experience delivering reproductive health care services during COVID-19?
9. Describe how local people are engaging during COVID-19 to assist women in obtaining reproductive health care.
10. Describe how local communities are engaging during COVID-19 in assisting with social support.
11. Describe how local communities are engaging during COVID-19 in assisting with community partnerships.
12. What reproductive health resources are available?

13. What are the biggest barriers in obtaining reproductive health resources for patients during COVID-19?
14. If barriers or gaps currently exist in the reproductive health care system, what are they?
15. How are engaging local people enhance the flexibility of obtaining these services during COVID-19?
16. How are engaging local people reduce the risks associated with obtaining reproductive health care services during COVID-19?
17. Describe how local people are engaging in providing health equity in women obtaining reproductive health care resources during COVID-19.
18. How are engaging communities enhancing the flexibility of obtaining community partnerships during COVID-19?
19. Since the first case of COVID-19, what, if any, reproductive and child health guidelines and/or programs have been implemented in the clinics in Haiti in order to prepare for a future potential natural disaster or epidemic?
20. Has your opinion of the health care system in Haiti from the time of COVID-19 until now changed, if so, how?

Thank you for your participation in this interview.

Time Interview Concluded: _____

Appendix J: Individual Interview Protocol for Health Care Professionals (Haitian Creole)

Apendis M: Pwotokòl Entèvyou Endividyèl pou Pwofesyonèl Swen Sante yo

Dat: _____

Kote: _____

Entèvyou: Abbi Lee

Entèvyouve: _____

Fòm konsantman siyen? _____

Remak entèvyou a

Mèsi paske ou patisipe nan etid sa a. Fidbak ou ap yo ap bay enfòmasyon valè nan rechèch la. Ou garanti an konfidansyalite. Longè a apwoksimatif nan etid sa a se yon sèl èdtan.

Chapant Pwojè a

Rezilyans Kominote (Rezilyans defini kòm kapasite kominote a, ladrès, ak konesans ki pèmèt li fè fas avèk siksè epi patisipe konplètman nan pwòp rekiperasyon yo nan katastwòf yo (Coles, 2004). Teyori rezilyans kominotè deklare yon kominote ki pi rezistan lè yo diminye risk ak diminye inegalite resous pa angaje moun lokal yo, kreye patenarya, ak ankouraje sipò sosyal atravè fleksibilite, ladrès pou pran desizyon, ak enfòmasyon ou fè konfyans apre yon dezas natirèl) ak repwodiksyon Jistis (defansè pou dwa repwodiksyon atravè yon mouvman jistis sosyal ki pi laj, ki gen ladan atravè dwa moun, lapè, egalite edikasyon, povrete, ak disparite nan swen sante).

Rechèch Kesyon yo

RQ1-Kalitatif: Ki eksperyans pwofesyonèl repwodiktif ak swen sante timoun (ki bay swen prenatal, travay akouchman, oswa swen apre akouchman) ki te travay ak fanm anvan e apre yo te dekouvri premye ka COVID-19 an Ayiti?

RQ2- Kalitatif: Depi yo te dekouvri premye ka COVID-19 an Ayiti ki chanjman, si genyen, ki te fèt nan sistèm swen sante repwodiksyon an Ayiti?

Tan entèvyou te kòmanse: _____

Kesyon entèvyou

Anvan COVID-19 an Ayiti

1. Kijan sistèm swen sante repwodiktif la te èstriktire anvan yo te dekouvri premye ka COVID-19 an Ayiti?
    a. Ki sa ki pèsepsyon ou nan nivo nan bon jan kalite a nan swen sante repwodiktif bay anvan pandemi COVID-19 la?
2. Dekri kijan moun lokal yo te angaje anvan COVID-19 pou ede fanm jwenn swen sante repwodiksyon.
3. Dekri kijan kominote lokal yo te angaje anvan COVID-19 nan ede ak sipò sosyal.
4. Kijan kominote angaje yo te amelyore fleksibilite pou jwenn sèvis sipò sosyal anvan COVID-19?
5. Ki jan angaje kominote lokal yo diminye risk ki asosye avèk jwenn sèvis sipò anvan COVID-19?
6. Dekri kijan kominote lokal yo te angaje nan bay ekite sante pou fanm nan resous sipò sosyal anvan COVID-19?
7. Dekri kijan kominote lokal yo te angaje anvan COVID-19 nan ede avèk patenarya kominotè.

Pandan COVID-19 pandemi te kòmanse

8. Ki eksperyans ou bay sèvis repwodiksyon swen sante pandan COVID-19?
9. Dekri kijan moun lokal yo angaje pandan COVID-19 pou ede fanm jwenn swen sante repwodiksyon.

10. Dekri kijan kominote lokal yo ap angaje pandan COVID-19 nan ede ak sipò sosyal.
11. Dekri kijan kominote lokal yo ap angaje pandan COVID-19 nan ede avèk patenarya kominotè yo.
12. Ki resous sante repwodiksyon ki disponib?
13. Ki pi gwo baryè pou jwenn resous sante repwodiktif pou pasyan yo pandan COVID-19?
14. Si baryè oswa twou vid ki genyen egziste nan sistèm swen sante repwodiktif la, ki sa yo ye?
15. Kouman yo angaje moun lokal amelyore fleksibilite nan jwenn sèvis sa yo pandan COVID-19?
16. Kouman yo angaje moun lokal diminye risk ki asosye avèk jwenn sèvis swen sante repwodiktif pandan COVID-19?
17. Dekri kijan moun lokal yo angaje nan bay ekite sante nan fanm k ap jwenn resous swen sante repwodiktif pandan COVID-19.
18. Kouman kominote angaje yo amelyore fleksibilite pou jwenn patenarya kominotè pandan COVID-19?
19. Depi premye ka COVID-19 la, ki sa ki genyen, direktiv repwodiktif ak sante timoun ak / oswa pwogram yo te aplike nan klinik yo an Ayiti yo nan lòd yo prepare pou yon potansyèl dezas natirèl potansyèl oswa epidemi?
20. Èske opinyon ou sou sistèm swen sante an Ayiti depi lè COVID-19 jouk kounye a chanje, si wi, ki jan?

Mèsi pou patisipasyon ou nan entèvyou sa a.

Tan Entèvyou Konkli: _____

Appendix K: Interview Protocol for Pregnant or Recently Pregnant Women for Individual Interviews

Date: _____

Place: _____

Interviewer: Abbi Lee

Interviewees: _____

Consent forms signed? _____

Note to the interviewees

Thank you for participating in this study. Your feedback will provide value information to the research. You are guaranteed confidentially. The approximate length of this study is one hour.

Framework of the Project

Community Resilience (Resilience is defined as a community's capacity, skills, and knowledge that allows it to deal successfully and participate fully in their own recovery from disasters (Coles, 2004). Community resilience theory states a community is most resilient when they reduce risk and decrease resource inequality by engaging local people, creating partnerships, and encouraging social support through flexibility, decision-making skills, and trusted information after a natural disaster) and Reproductive Justice (advocates for reproductive rights through a broader social justice movement including through human rights, peace, educational equality, poverty, and health-care disparities).

Research Questions

RQ1-Qualitative: What are the experiences of the reproductive and child health care professionals (providing antenatal, labor and delivery, or postnatal care) who worked with women before and after the first case of COVID-19 in Haiti was discovered?

RQ2- Qualitative: Since the first case of COVID-19 was discovered in Haiti, what changes, if any, have occurred to the reproductive health care system in Haiti?

Time Interview Began: _____

Interview Questions

Before COVID-19

1. What was the quality of the reproductive health care system like before COVID-19?
2. What were the difficulties and advantages of the reproductive health care system leading up to COVID-19?
3. Describe how local people were engaged before COVID-19 to help assist you in obtaining reproductive health care.
4. How did engaging communities help reduce the risks associated with obtaining reproductive health care services before COVID-19 for you and others obtaining reproductive health care services?
5. Describe how local people were engaged in providing health equity for you and other women obtaining reproductive health care resources before COVID-19.
6. Describe how local communities were engaged before COVID-19 in assisting with social support for women needing access to reproductive health services.
7. How did engaging communities enhance the flexibility of obtaining social support services before COVID-19?

During COVID-19

8. What is your experience with accessing reproductive health services during COVID-19?
    a. How did it change from before COVID-19?
9. Describe how local people are engaged during COVID-19 to help assist you in obtaining reproductive health care.
10. How are engaging communities helping to reduce the risks associated with obtaining reproductive health care services during COVID-19 for you and others obtaining reproductive health care services?

11. Which organizations are available during COVID-19 to help overcome any barriers that may have been created by the disaster?
12. Describe how local people are engaged in providing health equity for you and other women obtaining reproductive health care resources during COVID-19.
13. Describe how local communities are engaged during COVID-19 in assisting with social support for women needing access to reproductive health services.
14. How are engaging communities enhancing the flexibility of obtaining social support services during COVID-19?
15. How are local communities reducing the risks associated with obtaining support services during COVID-19 for you and other women needing reproductive health services?
16. What reproductive health resources are available?
17. What are the biggest barriers in accessing reproductive health resources during COVID-19?
18. What barriers or gaps still exist in the reproductive health care system?
19. What needs to be done to prepare the reproductive health system for another disaster if one occurs?
20. What changes have occurred, if any, since the first case of COVID-19? (I.e. built resilience)

Thank you for your participation in this interview.

Time Interview Concluded: _____

Appendix L: Interview Protocol for Pregnant or Recently Pregnant Women for Individual Interviews (Haitian Creole)

Apendis N: Pwotokòl entèvyou pou fanm ansent oswa fanm ki fèk ansent pou entèvyou endividyèl yo

Dat: _____

Kote: _____

Entèvyou: Abbi Lee

Entèvyouve: _____

Fòm konsantman siyen? _____

Remake entèvyou yo

Mèsi pou patisipe nan etid sa a. Fidbak ou ap bay enfòmasyon valè nan rechèch la. Ou garanti an konfidansyalite. Longè apwoksimatif nan etid sa a se yon sèl èdtan.

Chapant Pwojè a

Rezilyans Kominote (Rezilyans defini kòm kapasite kominote a, ladrès, ak konesans ki pèmèt li fè fas avèk siksè epi patisipe konplètman nan pwòp rekiperasyon yo nan katastwòf yo (Coles, 2004). Teyori rezilyans kominotè deklare yon kominote ki pi rezistan lè yo diminye risk ak diminye inegalite resous pa angaje moun lokal yo, kreye patenarya, ak ankouraje sipò sosyal atravè fleksibilite, ladrès pou pran desizyon, ak enfòmasyon ou fè konfyans apre yon dezas natirèl) ak repwodiksyon Jistis (defansè pou dwa repwodiksyon atravè yon mouvman jistis sosyal pi laj ki gen ladan atravè dwa moun, lapè, egalite edikasyon, povrete, ak disparite nan swen sante).

Rechèch Kesyon

RQ1-Kalitatif: Ki eksperyans pwofesyonèl repwodiktif ak swen sante timoun (ki bay swen prenatal, travay akouchman, oswa swen apre akouchman) ki te travay ak fanm anvan e apre yo te dekouvri premye ka COVID-19 an Ayiti?

RQ2- Kalitatif: Depi yo te dekouvri premye ka COVID-19 an Ayiti ki chanjman, si genyen, ki te fèt nan sistèm swen sante repwodiksyon an Ayiti?

Tan entèvyou te kòmanse: _____

Kesyon entèvyou

Anvan COVID-19

1. Ki kalite sistèm repwodiktif swen sante tankou anvan COVID-19?
2. Ki difikilte ak avantaj sistèm swen sante repwodiktif ki mennen jiska COVID-19 la?
3. Dekri kijan moun lokal yo te angaje anvan COVID-19 pou ede ou jwenn swen sante repwodiksyon.
4. Kijan kominote angaje yo te ede diminye risk ki asosye avèk jwenn sèvis swen sante repwodiktif anvan COVID-19 pou ou menm ak lòt moun ki jwenn sèvis swen sante repwodiktif?
5. Dekri kijan moun lokal yo te angaje nan bay ekite sante pou ou menm ak lòt fanm kap resevwa resous swen sante repwodiksyon anvan COVID-19.
6. Dekri kijan kominote lokal yo te angaje anvan COVID-19 nan ede ak sipò sosyal pou fanm ki bezwen aksè nan sèvis sante repwodiksyon.
7. Kijan kominote angaje yo te amelyore fleksibilite pou jwenn sèvis sipò sosyal anvan COVID-19?

Pandan COVID-19

8. Ki eksperyans ou genyen ak aksè nan sèvis sante repwodiktif pandan COVID-19?
    a) Ki jan li chanje depi anvan COVID-19?
9. Dekri kijan moun lokal yo angaje pandan COVID-19 pou ede ou jwenn swen sante repwodiksyon.
10. Kijan kominote angaje yo ap ede redwi risk ki asosye avèk jwenn sèvis swen sante repwodiktif pandan COVID-19 pou ou menm ak lòt moun kap resevwa sèvis swen sante repwodiksyon?
11. Ki òganizasyon ki disponib pandan COVID-19 pou ede simonte nenpòt baryè ki ta ka kreye nan dezas la?
12. Dekri kijan moun lokal yo angaje nan bay ekite sante pou ou menm ak lòt fanm k ap jwenn resous swen sante repwodiksyon pandan COVID-19.

13. Dekri kijan kominote lokal yo angaje pandan COVID-19 nan ede ak sipò sosyal pou fanm ki bezwen aksè nan sèvis sante repwodiksyon.
14. Kouman yo angaje kominote amelyore fleksibilite nan jwenn sèvis sipò sosyal pandan COVID-19?
15. Kouman kominote lokal yo ap diminye risk ki asosye avèk jwenn sèvis sipò pandan COVID-19 pou ou menm ak lòt fanm ki bezwen sèvis sante repwodiksyon?
16. Ki resous sante repwodiksyon ki disponib?
17. Ki pi gwo baryè nan aksè nan resous sante repwodiktif pandan COVID-19?
18. Ki baryè oswa twou vid ki genyen toujou nan sistèm swen sante repwodiktif la?
19. Kisa ki dwe fèt pou prepare sistèm sante repwodiktif la pou yon lòt dezas si youn rive?
20. Ki chanjman ki te fèt, si genyen, depi premye ka COVID-19? (Sa vle di bati rezistans) Mèsi pou patisipasyon ou nan entèvyou sa a.

Mèsi pou patisipasyon ou nan entèvyou sa a.

Tan Entèvyou Konkli: _____